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A

COURSE OF LECTURES

ON

SYPHILIS.

DELIVERED AT THE SCHOOL OF MEDICINE GROSVENOR-PLACE, ST. GEORGE'S HOSPITAL, SESSION 1841-42.

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Lecture VII.

The urethra continued. The interior of the prostatic, membranous, and bulbous portions of the canal. Additional impediments to the passage of instruments. Compressor urethræ muscle. Interior of the spongy portion of the passage. Fossa navicularis. Lacuna magna. The cause and principal seat of ardor urinæ in gonorrhœa.

Female organs of generation. The germ-preparing organs. The ovary; its position, tunics, and structure. The Graafian vesicle. The anatomy of the ovum; the vitellus. The germinal vesicle; the germinal macula of Wagner. Observations tending to prove that the ovum in the human subject and in mammalia is impregnated in the ovarium. Influence of the ciliary motions of the epithelium scales in conducting the spermatozoa to the ovarium. The Fallopian tubes; their importance in the process of fecundation. The morsus diaboli. The corpus luteum. Changes effected in the ovum itself at the period of impregnation according to Dr. Barry.

Gentlemen,—The interior of the male urethra is the first subject upon which, in the present lecture, I wish to engage your attention. I have already explained to you, on taking a view externally of this canal, its average length and width, the names applied to different portions of it, and their relative positions and connections, especially in reference to the passage of instruments into the bladder. It is in the interior of the canal that we must look for some slight additional causes of interruption to the progress of instruments, depending upon the organisation of the lining membrane, which is thrown here and there into little folds or lacunæ, sufficiently large to arrest the point of a small instrument, depending also upon the entrance of the ducts of the male reproductive organs already described, and upon the natural variations in diameter of different portions of the passage.

I propose, first, to describe the interior of that portion of the urethra which extends from the bladder to the entrance of the ducts of Cowper's glands; this will include the prostatic, the membranous, the bulbous, and the first inch of the spongy portion of the canal.

In the dissection before us, the bladder has been laid open on its anterior part, and the incision has been carried from it into the urethra, laying open the portions of the canal just alluded to along the median line above, so as fully to expose the floor of the passage, in which the principal parts worthy of notice are situated. This diagram (Fig. 14), taken from the dissection, will explain them pretty clearly. The folds (No. 1) of the mucous membrane of the bladder, its smooth triangular surface (No. 2), called trigonum vesicæ, with the entrance of the ureters (No. 3), were sufficiently described in our last lecture, and may be well seen here. About the first fifteen lines of the urethra from the bladder will be found to be surrounded by the prostate gland; this portion of the canal is wider and more dilatable than any other: the finger can be readily passed into it from the bladder. If the average diameter of the urethra be taken at four lines, which is about the measurement of the canal where it is surrounded by the corpus spongiosum, then the prostatic portion (No. 5) may be said to measure about six lines across. In the median line of the floor of this portion of the urethra will be observed a little rounded projection (No. 6), termed the caput gallinaginis, or verumontanum: on its centre a little pouch (sinus pocularis) is situated, which, as you see in this dissection, will

readily admit a common-sized probe to pass backwards to the extent of three or four lines, in which, consequently, the point of a small catheter or bougie might easily get entangled; and injections thrown into the urethra, if allowed to pass thus far, would certainly insinuate themselves into it.

Fig. 14.

This diagram represents the interior of the base of the bladder, and the floor of the prostatic, membranous, bulbous, and first inch of the spongy portion of the urethra.

1. Folds of the mucous membrane of the bladder.
2. Trigonum vesicæ.
3. Entrance of the ureters.
4. Cut surfaces of the prostate gland.
5. Prostatic portion of the urethra.
6. Caput gallinaginis.
7. Ductos ejaculatorii.
8. Sinus prostaticus.
9. Membranous portion of the urethra.
10. Bulbous portion.
11. Spongy portion, in which are seen the entrance of Cowper's glands.
12. Corpora cavernosa divided on one side of the septum.
13. Crura penis.

Immediately under the margin of this sinus pocularis may be noticed the orifices of the ductus ejaculatorii (No. 7), which, it will be remembered, are the common ducts of the testes and vesiculæ seminales; and when we consider how frequently in cases of gonorrhœa the inflammation extends to the epididymis and testis, especially under the employment of remedies which tend to arrest the purulent secretion from the urethra, it ought to make us exceedingly particular in our directions to patients, when they inject fluids down the urethra, to press with the finger the spongy portion of the canal two or three inches from the glans, in order to prevent the injected fluid from reaching the sinus pocularis. You will not fail to observe, in reference to the extension of inflammation from the urethra to the testis, that there is a direct continuity of the lining membrane of the former with the tubes of the latter at the entrance of the ejaculatory ducts.

From the caput gallinaginis may be traced backwards a median ridge, which joins the trigonum vesicæ, and on either side of it two oblique-raised lines, which are lost at the entrance of the bladder; forwards also, a sort of raphe may be seen passing into the membranous part of the canal, which is gradually lost in two divergent lines. On each side of the caput gallinaginis will be noticed a groove, sinus prostaticus (No. 8), into which some ten or fifteen little ducts from the prostate gland empty their contents. Bristles have been passed into them in the dissection, in order to show you more distinctly their position. The membranous portion of the canal (No. 9) succeeds the prostatic. It is from ten to twelve lines in length; its diameter is rather less than the average: supposing that of the spongy portion to be four lines, its measurement would not be more than three lines and a half.

Nothing remarkable is to be observed in its interior; externally, it is surrounded by fibrous membrane, derived from the orifice in the triangular ligament of Camper, through which it passes. This fibrous covering is prolonged backwards to the prostate gland, whose capsule it assists in forming; forwards it may be traced over Cowper's glands, and on to the sheath of the bulb. Upon this inert fibrous covering, muscular fibres, taking a circular course, may be distinctly seen; they were described by the older anatomists. Mr. Wilson discovered an attachment passing from them to the arch of the pubes; and Mr. Guthrie has lately made known two others, passing laterally to the rami of the pubes. The name of compressor urethræ is usually applied to these muscular fibres; they will be found on that part of the membranous portion of the urethra which is situated posterior to the triangular ligament of Camper. The circular fibres would constrict the canal, while those whose direction is vertical would tend to raise it; the transverse fibres, on the contrary, would draw it down again, and serve to keep it in the median line.

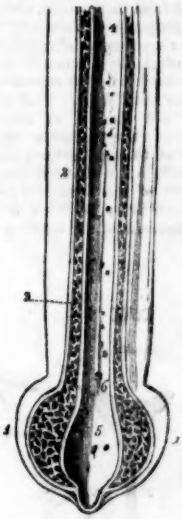
The exact position of these structures connected with the membranous part of the urethra, below the arch of the pubes, has been variously described. Some anatomists state that the fibrous covering which this

part of the urethra receives from the opening in the triangular ligament of Camper, is situated upon the fibres of the compressor urethræ, instead of underneath them, as I have informed you is the case. The best way to examine these parts is to remove the symphysis and descending rami of the pubes, with a portion of the bladder and urethra, and then to proceed with the dissection from behind forwards. The first structure which presents itself will be the anterior ligaments of the bladder; on removing these the vertical and transverse fibres of the compressor urethræ, also sections of the lateral branches of the dorsal vein of the penis, will be exposed: on dissecting these away, the triangular ligament of Camper and the membranous part of the urethra will be seen. It will now be noticed that the opening in this ligament through which the urethra passes, is concealed by a tubular prolongation, derived from its margin, and which forms the fibrous covering under consideration.

The interior of the bulbous portion of the urethra (No. 10) presents nothing remarkable, except a slight dilatation; it is about half a line wider than the spongy, and consequently measures a line more than the membranous, part of the canal. No ducts enter either it or the membranous portion; the ducts of Cowper's glands (No. 11) will be found on the floor of the pars spongiosa, about half an inch anterior to the bulb.

The remainder of the urethra, the last inch of which is contained within the glans, is termed the pars spongiosa. (No. 4, Fig. 15.) It contains numerous lacunæ, chiefly located in its upper wall. In the dissection on the table, where this part of the urethra has been laid open from below, the lacunæ, into which the bristles have been placed, will be well seen. The largest of these (No. 6, Fig. 15,) is situated just posterior to the glans; it is called the lacuna magna, and is sufficiently large to obstruct the point of a small instrument. These lacunæ may be avoided, when it is necessary to employ a small-sized catheter or bougie, by directing the point towards the floor of the canal. The orifice of the urethra forms a vertical fissure at the extremity of the glans, the sides of which bulge inwards, so as to press against each other, by which mechanism the orifice is closed without the aid of muscular fibres. When the lining membrane of the canal becomes swollen, under the inflammation attendant upon gonorrhœa, this bulging of the sides of the canal is increased, and a characteristic pouting appearance of the orifice is produced. Immediately within the glans the urethra, when laid open, appears dilated into a sort of oval enlargement, to which the term of fossa navicularis has been applied (No. 5). This appearance depends greatly upon the closer adherence of the mucous

Fig. 15.



This diagram represents the last four or five inches of the spongy portion of the urethra laid open from below, so as to show the upper wall of the canal, in which the lacunæ are principally situated.

1. Surface of the glans.
2. Corpus cavernosum.
3. Cut surface of the corpus spongiosum and glans.
4. Upper surface of spongy portion of the urethra, in which are seen the lacunæ.
5. Fossa navicularis.
6. Lacuna magna.

membrane to the firm substance of the glans, together with the narrowing of the orifice. The spongy portion, with the exceptions mentioned, is pretty uniform in diameter, measuring about four lines. The orifice of the urethra is admitted to be the most constricted part of the canal; an instrument, therefore, which enters it ought to pass readily through the rest of the passage, provided there be no preternatural obstruction. The lining of the urethra, like other mucous membranes, produces a secretion of a transparent mucus, which, under inflammation of either an ordinary or specific character, soon becomes changed into pus. Chemical analysis and microscopical examinations have not hitherto pointed out to us any difference between bland mild pus, arising from simple irritation, and the matter of the most virulent

gonorrhœa; nor are we acquainted with any test by which we can distinguish the puriform fluid resulting from this poison, excepting its remarkable property of inducing the same action in other mucous membranes, by which it was itself originally produced, and which is certainly followed by the reproduction of a similarly poisonous fluid. The lacunæ of the urethra are formed of small semilunar folds of the mucous membrane, arranged so as to form little pouches, the openings of which are directed towards the external orifice of the canal. The mucous secretion, which is to lubricate and protect the lining membrane of the urethra from the acrid urine, is accumulated in these little culs de sac. By this simple mechanism the urine, in its passage from the bladder, must press the mucus out of the lacunæ before it, so that every part of the canal receives its defence previously to the urine coming in contact with it. When the urethra secretes pus instead of mucus, the natural defence being imperfect, while the sensibility is increased, the urine produces a painful scalding sensation (ardor urinæ) in its passage through the canal. This distressing symptom is frequently most severe in the position of the lacuna magna, that is, about an inch or an inch and a half from the meatus urinarius.

Figs. 16, 17, 18.

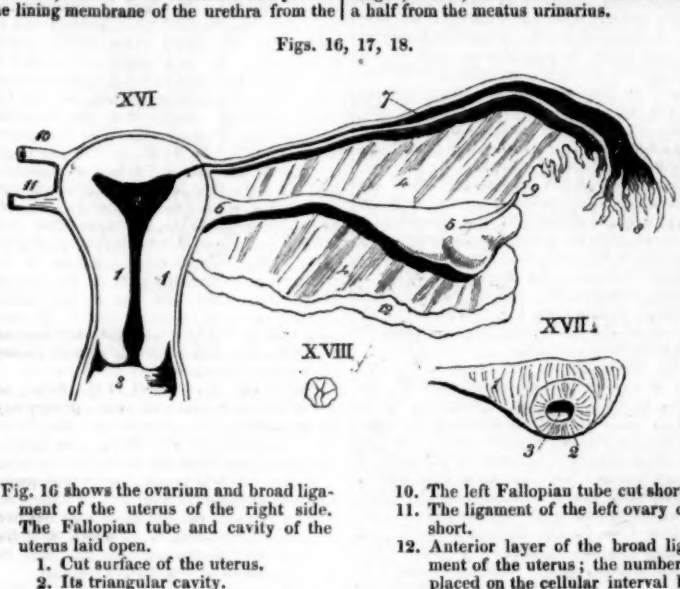


Fig. 16 shows the ovarium and broad ligament of the uterus of the right side. The Fallopian tube and cavity of the uterus laid open.

1. Cut surface of the uterus.
2. Its triangular cavity.
3. The vagina.
4. The posterior layer of the broad ligament of the uterus.
5. The ovarium.
6. The ligament of the ovary.
7. The Fallopian tube laid open its whole length.
8. Its fimbriated extremity.
9. One of the fimbriæ attached to the ovarium.
10. The left Fallopian tube cut short.
11. The ligament of the left ovary cut short.
12. Anterior layer of the broad ligament of the uterus; the number is placed on the cellular interval between the two layers.

Fig. 17. Section of an ovarium four or five weeks after conception.

1. Stroma of the ovary.
2. Corpus luteum.
3. Its cavity.

Fig. 18. Section of a corpus luteum nine months after conception, or at the full period of utero-gestation.

I have now concluded what I thought it necessary to say to you on the structure of the male urino-genital organs, preparatory to the consideration of the diseases to which they are liable, and which I trust will enable you the better to understand their nature and treatment, as well as to distinguish those arising from the syphilitic poison from other affections which may in many external characters much resemble them.

I now propose, with a similar view, to direct your attention to the analogous organs in the female. As I proceed I shall explain the practical application of some of the anatomical facts as they come before us, and intend to enter so far upon the consideration of the healthy functions of each organ, as may appear to be requisite for the proper comprehension of their disturbed state under disease.

The female organs of generation are divided into the germ-preparing or formative organs, consisting of the ovaries and their excretory ducts the Fallopian tubes, to which may be added the uterus, in which the germ is perfected; and into the transmitting organs, which serve also for sexual intercourse, viz., the vagina, and the appendages connected with its external orifice, the labia, clitoris, mons veneris, and hymen: they have also been classed into external and internal, but I prefer following the physiological arrangement first mentioned. I shall begin with the essential organs, the ovaries; the removal of which in animals deprives them not only of the reproductive power, but of all the instinctive desire and most of the attributes of the sex.

The ovaries (No. 6, Fig. 16,) are two oval bodies about the size and shape of unshelled almonds, situated in the pelvic cavity between two folds of the peritoneum, called the broad ligament of the uterus. The posterior fold of the ligament (No. 4, Fig. 16), more correctly speaking, forms the covering to the ovary, and allows it even to assume a depending position; consequently the ovary will only be seen on viewing the posterior surface of the broad ligament. The long diameter of the ovary measures from an inch to fifteen lines, and is situated transversely: the short diameter measures about six lines. From the inner extremity of the organ passes a ligamentous cord about an inch and a half in length (Fig. 16, No. 2), which attaches the ovary to the side of the uterus near to its fundus, and is called the ligament of the ovary. Connected with the outer or broad extremity of the organ, is a prolongation of one of the fimbriæ (No. 9) which surround the trumpet-shaped orifice of its excretory duct, the Fallopian tube. (No. 7.) The ovary has two tunics; one is derived from the posterior fold of the broad ligament of the uterus; the other is its proper capsule, which has been compared to the fibrous tunic of the testis, and has by some been called the tunica albuginea of the ovary; it serves to contain and protect the proper texture of the organ; its exterior is inseparably connected to the peritoneal coat; its interior is as intimately adherent to the appropriate tissue of the ovary. On making a section of the organ, it appears to be composed of a tough, white cellular tissue (stroma of the ovary), imbedded in which will be found several little vesicles about a line in diameter; these are termed the Graafian vesicles, and were considered by de Graaf and others to resemble the ova of oviparous animals. This was the received opinion till the discovery of Baer, who detected a minute globular body within the Graafian vesicle, measuring not more than 1-20th or 1-30th of a line in diameter, and which he considered to be the true human ovulum, analogous, though of so small a size, to the vitellus or yolk of the bird. This opinion of Baer's is now generally admitted to be correct by those who have especially devoted their time to this interesting subject.

In the ovaries of birds there is no proper Graafian vesicle, but the ovum, which, when mature, in the common fowl measures an inch in diameter, is in immediate contact with the stroma of the organ. This surrounds the ovum, and projects with it; and when the stroma gives way, which it does, opposite a line called the cicatrice or stigma, to allow of the escape of the ripe ovum, a sort of cup-shaped cavity is left, which is denominated the calyx: but in the human subject and in mammalia the minute ovum, hardly visible to the naked eye, is situated in the midst of the fluid of the Graafian vesicle, from which, when mature and impregnated, but not till then, makes its escape from the Graafian vesicle, and is received (still of this microscopic size) by the Fallopian tube, and conveyed into the uterus. When we consider that the ovum travels from the ovarium into the uterus while so minute as scarcely to be perceptible to the unassisted eye, we can no longer wonder that physiologists were baffled for so many centuries in detecting it in its transit: even to the present hour it has never been seen in the human subject, except in the ovary and in the uterus; but in rabbits, and in other animals killed for the purpose, it has been frequently observed in its passage.

The Graafian vesicle (*b*, Fig. 19) is composed of two layers: an external very vascular membrane, which adheres to the stroma of the ovarium (*a*, Fig. 19), and an internal lamina endued with an epithelial covering. Within the vesicle is contained a transparent albuminous fluid (*c*, Fig. 19), in which numerous microscopic granular globules will be found of 1-300th to 1-200th of a line in diameter; in the midst of this fluid the minute ovulum (*e*, Fig. 19), is situated.

Each ovarium contains originally from twelve to fifteen Graafian vesicles, and it is most remarkable that these, as well as the ova which they contain, should be perfect in all their parts at the time of birth; forming a complete contrast in this respect with the essential product of the testicle, the seminal fluid, which only makes its appearance at the full period of puberty.

The ovulum, when separated from the Graafian vesicle and placed under the microscope, may be distinctly seen to be composed of an outer rather thick transparent envelope, the zona pellucida (*e*, Fig. 19), or chorion. This outer capsule contains the yolk or vitellus (*f*, Fig. 19), which consists principally of water, albumen, and oily particles; the microscope discovers in it the proper vitelline globules, mixed with oil globules; the yolk is supposed by some anatomists to have its proper capsule independent of the zona pellucida. In the midst of

this vitellus the germinal vesicle (*g*, Fig. 19), discovered by Purkinje, is situated. The germinal vesicle is globular in form, and measures about 1-60th of a line in diameter; in the mature ovum it lies in contact with the zona pellucida, but in the immature it is found in the centre of the vitellus. Wagner discovered in the germinal vesicle a central dark spot which adheres to the interior of the vesicle, and which he has designated the germinal macula; it is exceedingly small, not measuring more than the 1-200th or 1-300th of a line in diameter. The germinal macula is represented in Fig. 19 as situated near the centre of the germinal vesicle *g*.

Figs. 19, 20.

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XIX

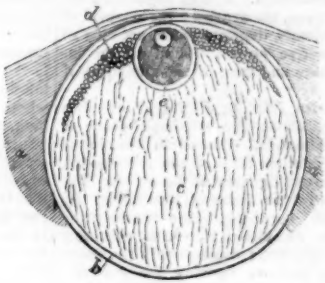

Fig. 19. An ideal section of a Graafian vesicle, highly magnified.

a. Stroma of the ovarium.
b. The wall of the Graafian vesicle composed of two layers.
c. The fluid of the vesicle.
d. A disk of globules derived from the fluid of the Graafian vesicle, imbedded in which will be found the ovum. When mature the ovum is connected by this disk of globules (retinacula of Barry) to that part of the interior of the vesicle which is nearest to the surface of the ovarium.
e. The zona pellucida of the ovum.
f. The yolk or vitellus.
g. The germinal vesicle, in which may be seen the germinal macula of Wagner.

Fig. 20. An ideal section of a Graafian vesicle just burst, magnified (after Baer).

a. Peritoneal investment of the ovary.
b. Fleshy mass formed around the walls of the vesicle.
c. Its cavity.
d. The ovulum which has escaped.

Such are the constituent parts of the female germ as prepared in the ovarium, and which undergo no further changes towards development in mammalia until impregnation takes place.

In a former lecture, when speaking of the fecundating fluid of the male, I explained to you that it was considered essential that the spermatozoa should be brought in contact with the female germ. In most fishes and in amphibia this is not effected until the ova have been expelled from the female parent, the seminal fluid of the male being then shed over them out of the body. It has been abundantly proved by Spallanzani and other experimentalists, that those ova of the frog which were designedly prevented from coming in contact with the seminal fluid, remained unfruitful; whilst those alone which were artificially brought in contact with the least conceivable quantity of this fluid became developed. It appears also in birds that the ova may leave the ovarium, and even be expelled externally without fecundation having been effected. This renders it probable that the indispensable contact of the male secretion in birds may be accomplished in the oviducts after the ova have left the ovaria.

But in the human subject and in mammalia the observations that have been made by various investigators all tend to show that fecundation takes place in them, whilst the ovum still remains imbedded in the ovarium; and I shall now proceed to state these facts to you, that you may be enabled to judge of the kind of evidence upon which this important conclusion has been arrived at. It appears that in mammalia the ova do not leave the ovaria for some days after sexual intercourse; the exact period varies in different species of animals, and in different individuals of the same species. In rabbits, three or four days may elapse before the ova have

left the ovary; in bitches, ten days or a fortnight may be required; while in the roe-deer, which refuses the male after the month of August, the ova are found to remain in the ovarium till the following December, a period of four months. It is exceedingly improbable that the spermatozoa would retain their vitality during this length of time, so as to influence the ovum after its arrival in the Fallopian tubes, or in the uterus: again, those cases of extra-uterine conception, where the ovum has been retained and developed in the ovarium, are of course conclusive as far as those particular cases are concerned, and at least render it probable that in other instances fertilisation is accomplished in the same organ. In the next place, spermatozoa have been detected by Dr. Bischoff, Dr. Martin Barry, by Wagner, and others, in actual contact with the ovaries in bitches and in rabbits. These animalcules, however, they observe, do not immediately reach this position, and, indeed, not till some twenty-four hours have elapsed after the coitus; and it is found that if the Fallopian tubes be ligatured or divided soon after sexual intercourse has taken place, conception is altogether prevented; but if time be allowed for the spermatozoa to reach the ovary by delaying the experiment for two or three days, the ova become evolved as usual.

You will better understand the cause of this delay in the progress of the fecundating fluid to its intended destination the ovarium, and also by what means or organisation its transit is effected, after we have described the remaining parts of the female generative system. I shall merely here state that, in addition to the movements of the spermatozoa themselves, the greater part of the passages through which they have to pass are lined by epithelium scales, possessing ciliary motions; and to explain to you the power these can exert in producing a progressive movement in minute particles in contact with them, I will relate to you an experiment of Dr. Sharpey's, which may be readily repeated, and which I think will be perfectly satisfactory on this point. He removed the lower jaw of a frog, and strewed upon the exposed palate some finely-powdered charcoal; in the course of a few minutes this all disappeared, being carried into the fauces by the vibratory cilia with which its surface is furnished.

But to comprehend this interesting subject as far as our knowledge at present extends, and to enable you to judge of the causes which may interfere with or promote the reproductive function; to aid you in understanding how far the primary or the secondary effects of the syphilitic poison may influence the organisation of the embryo, either through the diseased condition of the generative organs, or through the contaminated system of the mother, it will be necessary to explain to you further the changes which have been observed to take place in the ovarium, in the Fallopian tube, and in the ovum itself at the period of sexual intercourse.

The Fallopian tube (No. 7, Fig. 16,) is a canal of about four inches in length, situated at the upper border of the broad ligament (No. 4) of the uterus. One of its extremities opens into the uterus (1) at the upper angle of its triangular cavity (2): this orifice is termed ostium uterinum; its diameter, as well as that of the first inch and a half of the tube, is exceedingly small, not measuring more perhaps than one-fifth of a line. The calibre of the tube after this suddenly enlarges to about two lines, and terminates by a trumpet-shaped opening, called its ostium abdominale. This orifice is free or open into the cavity of the peritoneum; its margin is very irregular or fringed, and is often designated the fimbriated extremity (8) of the Fallopian tube. One of the fimbriæ (9) will be seen to have an attachment to the outer extremity of the ovary (5) near its upper edge. The Fallopian tube is lined by a mucous membrane furnished with ciliate epithelium continuous at its ostium uterinum with that of the uterus. At the ostium abdominale this membrane coats the inner surface of the fimbriæ, and becomes continuous with the peritoneum which covers their outer surface; thus presenting the only instance in the body of a mucous membrane joining a serous one. The outer tunic of the Fallopian tube is formed of the peritoneum belonging to the folds of the broad ligament of the uterus: between the serous and mucous coats a thin layer of muscular fibres are distinctly developed, and which extend to the fimbriæ. The function of this tube in the process of fecundation is very important: the seminal fluid must traverse it in one direction to gain the ovary; the ovum has to pass through it in the other to reach the uterus; consequently, any obliteration of its cavity or orifices must inevitably be followed by unfruitfulness. But the most remarkable change effected in this tube occurs at the period of, and subsequent to, sexual intercourse: its fimbriated extremity is found, in animals destroyed after coitus, to grasp the ovarium, on which account it has been called the morsus diaboli, and it is ascertained by direct experiment that the fimbriæ continue to embrace the ovary till the fecundated ova have escaped into the tube, and it may be several days or even weeks before this is accomplished. The changes which are noticed to take place after a fruitful intercourse of the sexes, are principally an increased determination of blood to the ovarium; while the Graafian vesicle of the mature and fecundated ovum increases in size, and a deposition of a yellowish granular matter takes place at the sides and deepest part of it. (*b*, Fig. 20.) The ovum which it contains

is thus pressed towards the peritoneal surface of the ovary; a small opening or fissure at length appears (the stigma), and the little ovum (*d*, Fig. 20,) escapes, and is received by the Fallopian tube.

The altered Graafian vesicle is termed a corpus luteum. (Figs. 17,18.) After the escape of the ovum from it, the deposition of the granular matter continues, its orifice becomes closed, its cavity gradually filled in; subsequently it decreases in size, and ultimately disappears. The corpus luteum of the human subject a few weeks after conception, would be found about the size of a large pea or small bean projecting beyond the surface of the ovarium; on its surface would be seen either an opening or a cicatrix; in its centre would be observed a cavity two or three lines in diameter (3, Fig. 17); its wall, a line or two in thickness, would appear to be formed by a yellow striated structure, somewhat resembling the tissue of the renal capsule. After the sixth month of impregnation the cavity can no longer be seen, but a stellate appearance may be remarked in its centre (Fig. 18): a few months after the full period of utero-gestation all traces of the corpus luteum are lost.

A great variety of opinion exists with respect to the exact locality of the peculiar deposition which takes place in the Graafian vesicle, and of which the corpus luteum is formed: according to Wagner, it is composed of a thickening of the inner membrane of the vesicle. Dr. Barry describes it to be developed in the outer vascular tunic. Dr. Montgomery and Dr. Paterson are of opinion that it is deposited between the two layers of the vesicle; while Dr. Lee considers it to be external to both, and to be situated therefore between the stroma of the ovarium and the outer tunic of the Graafian vesicle.

We are indebted to Dr. Martin Barry for some most interesting observations relative to the changes which occur in the ovum at the period of impregnation. He states that the ovum, when it becomes mature, leaves the centre of the Graafian vesicle which it had formerly occupied, and gains its surface; that a similar change takes place in the relative position of the germinal vesicle within the vitellus, which reaches the surface of the yolk, and presents its germinal spot nearest to the exterior of the ovarium. Thus, *ante coitum* the essential parts of the ovum are brought as near as possible to the surface; and he infers that the seminal fluid, having reached the ovarium, influences the germinal macula through the attenuated capsule of the ovary. *Post coitum*, but before the ovum leaves the ovarium, he finds that the germinal vesicle returns to the centre of the yolk, and the yolk to the centre of the Graafian vesicle. Subsequently he observes that a series of changes is set up which consists principally in the formation of cells, commencing in the germinal macula, with which the germinal vesicle becomes distended, and that from each of these cells others are successively evolved, till at last the germinal macula and vesicle are no longer to be distinguished.

ON THE

ODORIFEROUS PLANTS,

AND THEIR

EFFECTS ON THE ANIMAL ECONOMY.

By John S. Hiley, A.B., M.B.,
Elland, near Halifax.

During the last summer my attention has been more than once directed to this subject, by the effects which the scents of certain flowers have had upon my own person, and upon those of others, producing a variety of disagreeable feelings in some cases amounting to distress, and this, too, when the size and airiness of the apartment, together with the simplicity and minuteness of the bouquet, would have been thought capable of obviating all such annoyance.

Facts of this kind have been long noticed both by physicians and botanists, but I do not think they have been dwelt upon so minutely as they deserve. As such, I propose in the following article to enlarge somewhat upon this interesting subject, with the impression that my lucubrations will be read not only by medical practitioners, but by those whose attention has been chiefly devoted to plants. I do not, however, intend to be very particular. I shall merely, in the first place, enumerate a few of those products which evolve odours; secondly, I shall show, as well as the present state of our information will permit, in what these odours consist; thirdly, specify the plants which emit any peculiar emanations, disagreeable and injurious to the animal senses; and, lastly, point out how these odours may act, and the best method of avoiding and remedying whatever unpleasant symptoms may result from them.

It will be seen that several large families of plants are each gifted with characteristic odours. Amongst these, I would particularly allude to the labiatæ, the compositæ, the cruciferæ, and the umbellaceæ. Add to this, that numerous other families contain many species which exhale odours peculiar to none of the rest, and which have a singular effect upon the animal economy.

Prior, however, to saying anything respecting them, I may as well notice two gaseous emissions which are not confined to any single plant or flower, but which are common to all the vegetable products of the globe—these are oxygen and carbonic acid; and since they exert so indispensable an influence over the vital and functional proper-

ties of vegetables, it cannot be supposed that any are exempt from generating and evolving them. In common parlance, healthy plants during the day give out oxygen and absorb carbon, whilst during the night they inhale oxygen and evolve carbon. This beautiful operation is dependent on particular causes, with which we have at present nothing to do. The two gases are possessed of very different properties; and whilst the one is essential to the well-being of the animal parts of the creation, the other, I mean carbonic acid, is quite deleterious and destructive of life. Accordingly, it might be expected that wherever it was secreted, such a situation would be injurious to the health.

As to the truth of its noxious powers, I need merely allude to the numerous fatal instances which have from time to time been put on record, consequent on inhaling it, where the parties have occupied rooms in which charcoal was burning, or where it was evolved from other sources. The black-hole at Calcutta, St. Martin's roundhouse in London, and many other places, afford ample testimony to the destructive powers of carbonic acid gas, in whatever way and from whatever quarter it may be received into the system. Dr. Paris alludes to a case where the effluvia of plants, constituted of carbonic acid and nitrogen, during the night, was succeeded by fatal consequences. It was as follows:—A gardener, watching for the safety of a pinery, was found dead in the morning in the greenhouse, with no other way of accounting for his sudden demise. According to our best authorities, the earlier symptoms are a sense of weight, giddiness, pain in the head, tinnitus aurium, sleepiness; loss of strength, with inability to remain in an upright position; dyspnœa, the senses no longer exercise their functions, and there is a partial or total loss of sensibility. By and by, perfect apoplexy is established, and the sufferer dies, having all parts of the body very much congested. The swollen and livid state of the features, &c., together with the circumstance that the blood is accumulated on the right side of the heart and in the veins leading to it, satisfactorily prove how poisons of this kind operate. I have repeatedly spoken with colliers who have nearly lost their lives from the effects of the choke-damp; and so far as I can ascertain from them, and their recollection enabled them to tell, the earlier symptoms are precisely such as those specified. The bodies poisoned by the gas, several of which have come under my observation, invariably displayed the swollenness, lividity, &c., just noticed.

I will now place before the reader a catalogue of a few of the odoriferous plants in the order of their classes. Of such as exert little or no influence on the animal economy, I am not called upon to make any remarks; but of those which do, I shall not only adjoin the character of their odours to the table in question, but I shall speak of them further in succeeding parts of the article. Upwards of one hundred and seventy plants, all indigenous to this country, yield odours. The table is as follows:—

Monandria Monogynia.

Chara vulgaris.
The whole plant is nauseously fœtid, and what is as singular, usually incrusted with earth, if any happen to be chemically dissolved in the water.

Diandria Monogynia.

Ligustrum vulgare.
Flowers strongly scented.

Diandria Digynia.

Anthoxanthum odoratum.
Stem tastes like lavender. In drying, the plant exhales the odour of woodruff, and is the principal cause of the fragrance of new hay.

Tetrandria Monogynia.

Asperula odorata.
Fragrant in the night only. The herb while drying has the scent of new hay, approaching to bitter almonds, or heliotropium peruvianum, of which it retains a portion some time.
Galium verum.
The flowers smell strongly of honey in the evening, or before rain.

Pentandria Monogynia.

Cynoglossum officinale.
The whole plant exhales when touched a pungent and nauseous scent like that of mice, or as some say the urine of dogs.
Viola odorata.
The scent of the flowers is well known, though sometimes causing headach.
Verbascum blattaria.
The whole herb is fœtid and acrid
Datura stramonium.
A very fœtid herb.
Hyoscyamus niger.
The leaves exhale a powerful and oppressive odour, particularly when dry.
Atropa belladonna.
Whole plant fœtid when bruised.
Solanum nigrum.
Flowers have a musky scent.
Lonicera periclymenum.
Skakspeare terms this "the sweet honeysuckle." The flowers are most fragrant in the evening, occasioned probably by the different density of the atmosphere.
Euonymus Europæus.
Fœtid in every part when bruised. The flowers are fœtid at all times.

Pentandria Digynia.

Chenopodium olidum.
The whole herb when touched exhales a strong, permanent, nauseous odour, somewhat similar to stale salt fish.

Myrrhis odorata.
The whole plant has the odour of anise.
Myrrhis temulenta.
An aromatic herb. Not intoxicating, as the specific name implies.
Myrrhis aromatica.
Aromatic only when bruised.
Sison amomum.
The whole herb exhales a peculiar nauseous scent when bruised, which I have heard compared to that emitted by bugs. The seeds have the same characteristic odour, but in their early state they are aromatic.
Œthusa cynapium.
Fœtid. Loses its scent in America.
Conium maculatum.
Fœtid.
Coriandrum sativum.
Recent plant when bruised dreadfully fœtid. The ripe seeds aromatic.
Œnanthe crocata.
Roots fœtid. Ehret, the botanical draughtsman, is said to have experienced a giddiness from the scent of the herb.
Smyrnium olusatrum.
Fruit highly aromatic, but too strong to be pleasant. The rest of the plant resembles celery in its smell.
Angelica and other of the umbelliferæ.
Aromatic.
Cnidium silaus.
The whole plant is fœtid when bruised.
Peucedanum officinale.
The juice emits a strong sulphureous odour.

Pentandria Trigynia.

Sambucus ebulus.
Nauseous, fœtid, and noxious.

Hexandria Monogynia.

Narcissus poeticus.
Flowers powerfully fragrant.
Allium ursinum.
When trodden upon, or otherwise bruised, this plant exhales the appropriate onion or garlic scent, peculiar to its genus.
Hyacinthus racemosus.
The flowers smell like wet starch, being equally disagreeable and oppressive to most people, causing headach and nausea to many.
Convallaria majalis.
Flowers sweet-scented.
Convallaria polygonatum.
Smelling like hawthorn, or heliotropium peruvianum.
Acorus calamus.
Radicles more aromatic than the rest of the herb. When trodden upon it smells like myrtle.
Berberis vulgaris.
The scent of the flowers is faint and oppressive.

Octandria Monogynia.

Œnothera biennis.
The flowers expand in the evening, and are delicately fragrant.
Daphne mezereum.
Flowers too powerfully fragrant for many persons.
Daphne laureola.
The scent of the flowers resembles saffron, with an overpowering sweetness, and is perceptible only in an evening. It has been however observed by very few.

Octandria Tetragynia.

Adoxa moschatellina.
The flowers emit a musky scent when moist.
Pyrola uniflora.
The flowers smell like the lily of the valley.

Decandria Digynia.

Saponaria officinalis.
The flowers give off an oppressive sweetness.
Dianthus caryophillus.
Flowers fragrant.

Decandria Trigynia.

Silene conica.
Flowers fragrant in an evening with the scent of the honeysuckle.
Silene noctiflora.
Flowers sweet-scented during the night, at which time they are alone expanded: they open about sunset, and close early in the morning.
Silene nutans.
Flowers sweet-scented in an evening, when they are most expanded.

Dodecandria Monogynia.

Asarum Europæum.
Roots when bruised emit the scent of pepper and ginger.

Dodecandria Digynia.

Agrimonia eupatoria.
Herb when bruised exhales a peculiar but aromatic scent.

Dodecandria Trigynia.

Reseda luteola.
Herb fœtid when bruised.

Icosandria Monogynia.

Mespilus oxyacantha.
Flowers sweet-scented.

Icosandria Pentagynia.

Spiræa ulmaria.
Flowers have a sweet but oppressive hawthorn-like scent.

Icosandria Polygynia.

Rosa rubiginosa.
The leaflets on their inferior surface are covered with reddish viscid glands, from which exhales the peculiar fra-

grant scent of this shrub, which has been compared to apples, but more agreeable. In apartments it is grateful without being oppressive.

Polyandria Monogynia.

Actæa spicata.
Fœtid; toads are reported to be fond of the scent.
Papaver somniferum.
The juice of this and every other species of poppy is fœtid, and exhales the smell of opium.
Nuphar lutea.
The flowers have the scent of brandy or ratafia.
Tilia Europæa.
Flowers fragrant, especially in an evening.

Polyandria Polygynia.

Helleborus fœtidus.
The whole herb is fœtid.

Didynamia Gymnospermia.

Teucrium scorodonia.
This plan has an aromatic scent, resembling that of hops, for which it is said to be no bad substitute in making beer.
Nepeta cataria.
The herbage exhales a strong, pungent, aromatic smell, approaching to that of mentha pulegium, and very grateful to cats.
Mentha rotundifolia.
Smell acrid, and much esteemed by some. A period of thirty years does not destroy this odour.
Mentha, several species.
Fragrant and aromatic.
Mentha arvensis.
The odour unpleasant, like cheese covered with blue mould.
Melittis melissophyllum.
The whole of this plant, when beginning to dry, becomes highly fragrant, like woodruff or vernal grass.
Numerous other plants in this class and order are fragrant and aromatic.

Didynamia Angiospermia.

Linnæa borealis.
Flowers fragrant at night, with the scent of meadow-sweet.

Tetradynamia Siliculosa.

Thlaspi arvense.
Seeds emit a garlic flavour, hence their use in the mithridate confection.
Senebiera coronopus.
The whole plant very fœtid.

Tetradynamia Siliquosa.

Erysimum alliaria.
When bruised exhaling the nauseous scent of garlic.
Matthiola sinuata.
Not fragrant in the day, but in the evening highly scented and pungent.
Hesperis matronalis.
By day they have little or no smell except in rainy weather, but in the evening they are delightfully fragrant.

Monadelphia Pentandria.

Erodium moschatum.
The whole herb emits a musky fragrance.

Monadelphia Decandria.

Geranium Robertianum.
The herb has a strong, disagreeably-pungent smell. Bugs are said to avoid it.

Monadelphia Polyandria.

Malva moschata.
The whole herb smells of musk.

Diadelphia Decandria.

Ulex Europæus.
The oppressive scent from the flowers of this shrub is very peculiar.

Polyadelphia Polyandria.

Hypericum perforatum.
This and most of the other plants of this family, in consequence of the essential oil contained in their leaves, &c., have an aromatic odour.

Syngenesia Polygamia Æqualis.

The members of this class and order fœtid.

Syngenesia Polygamia Superflua.

The members of this class and order aromatic and fœtid.

Gynandria Monandria.

Orchis bifolia and conopsia.
Smells in the evening like the honeysuckle. Several of this genus are aromatic; some emit a scent only when drying, like that from the asperula odorata.
Herminium monorchis.
Flowers smell like musk and honey, especially in an evening.
Corallorrhiza innata.
When beginning to dry it exhales the sweet and powerful scent of vanilla.

Monœcia Monandria.

Euphorbia characias.
The scent of the flowers is powerfully fœtid and disagreeable.

Diœcia Diandria.

Salix petiolaris.
After gathering, the young leaves especially exhale a strong scent, like the flavour of bitter almonds, but less agreeable.
Salix fœtida.
This shrub has the nauseous scent of fresh-water fish, or certain aquatic herbs or sponges. This odour be-

comes more offensive when fresh specimens have been confined for two or three days in a tin box.

Diœcia Tetrandria.

Myrica gale.
Leaves fragrant, as are the berries when rubbed, which last would seem to owe this property to the presence of an essential oil.

Diœcia Pentandria.

Humulus lupulus.
The ripe cones are highly aromatic. A pillow of hops occasions sleep.

It will be seen, on perusing the preceding catalogue, that most of the classes and orders in the Linnæan system have furnished one or more odoriferous plants. I have, however, omitted a great number whose scents bore any resemblance to those enumerated in the table, or which were so familiar as to require no note. These the reader may study by referring to their descriptions as given in any work on English botany.

I shall now, in the second place, proceed to show, so far as the present state of our knowledge will permit, in what these odours consist. According to the best authorities, both flowers and all other parts of plants which emit exhalations, owe this property to the presence of an essential oil, of a resinous and volatile character. It must be remembered, however, that plants secrete two kinds of oil, viz., the volatile and the fixed. These last are generally extracted from the seed or its envelopes, and do not give out any scent. The volatile oils abound in most plants which have any smell, and they are contained in spherical or oblong cells in the petals, fruits, leaves, and cortical parts. These, when placed between ourselves and the light, appear full of punctures, and this arises from the superior transparency of the cells which contain the oil. In the various myrtles and in the hypericum perforatum this fact is well exemplified; and so abundant is the odoriferous secretion in the former, that when any one of the leaves is squeezed between the finger and thumb, a portion of the scented oily matter remains on the latter, producing an agreeable fragrance. In the umbelliferæ, the essential oils which occasion the fragrance of so many members of this extensive and interesting family, collect in receptacles termed vittæ, which are oblong, club-shaped, and generally lodged between the coats of the seed vessels. Important generic characters have been derived from the constant number and appearance of these receptacles.

In addition to volatile oils, the family of the labiatæ contain camphor, and doubtless upon the presence of this compound many vegetables owe a portion of their odoriferous property. Some deny its existence in this family altogether, founding their opinion on the circumstance that, unlike the camphor derived from other sources, it is not converted into camphoric acid by nitric acid. Notwithstanding, I think its presence has been satisfactorily detected in lavender. The fact that it is closely allied to the essential oils, and that it exists ready formed in the laurus camphora of Japan, from the roots, trunk, and branches of which it may be procured by sublimation, renders more probable its prevalence in some of our indigenous productions, as in the case of the lavender just mentioned. Camphor is composed of carbon, hydrogen, and oxygen, and hence its inflammable character. It is exceedingly volatile, thus occasioning the powerful scent of those plants in which it abounds, and is soluble in the volatile and fixed oils, and in alcohol and acetic acid. Camphor is converted into a substance not unlike artificial tannin by the action of sulphuric acid, and into camphoric acid by nitric acid; because the matter denominated camphor derived from the labiatæ is not changed into camphoric acid by nitric acid, I may repeat, that the doubt as to its nature first originated.

The volatile oils abounding in some plants may be obtained by distilling them along with water, to prevent the plants from being charred: according to their density, the oils sink to the bottom, or rise to the top of the fluid, and though their odours are penetrating, yet they are very agreeable when sufficiently diluted. They are soluble in alcohol, insoluble in water, though the latter may be strongly impregnated with them; they combine with the fixed oils: they burn, and the products of their combustion are water and carbonic acid. This last experiment indicates their composition as consisting of carbon, hydrogen, and probably a little oxygen. They leave no stain on paper when pure. Anise, caraway, cinnamon, citron, chamomile, cloves, lavender, nutmeg, peppermint, and turpentine, are amongst the most important of the essential oils, and though they are not all indigenous, I have considered it advisable to enumerate them in consequence of their very prominent characters.

Upon the presence, then, of camphor and the volatile oils, it is highly probable that most of, if not all, the different odours evolved by plants are dependent; and though very different in their effects, yet still the numerous combinations which their atoms may form, and yet, in accordance with the isomeric doctrine, continue the same in chemical constitution, at once does away with any objection to this method of explaining such phenomena. As 720 changes may be rung on six bells, might we not aver that a similar number of compounds would result from the different arrangements of six individual atoms, compounds identical in composition, though distinct in their properties and qualities?

The odours of plants have been empirically divided into aromatic, fœtid, musky, alliaceous, &c.; and though these terms in many instances express their impressions upon the senses, yet it will be seen that they give us no just or adequate idea of their nature, inasmuch as very various effects are produced by substances which are, in all probability, perfectly identical in composition. The cause, then, of their difference in smell must be sought for in, and founded on, their chemical constitution. Since, however, much obscurity as yet hangs over this last field of inquiry, it will be preferable to content overselves with the little which has been already advanced as respects the nature of their elements, reserving all further remarks until the future investigations of men of science have rendered us more familiar with the circumstances which have any connection with their odours.

Again, it will be seen on glancing at the catalogue, that the largest number of scented plants are yielded by a few particular families. Amongst these, I would invite especial attention to the umbelliferæ, labiatæ, amygdaleæ, compositæ, euphorbiaceæ, &c.: some of the plants give out their odours during the day, whilst others are only night-scented; that is, emit their delicate perfumes after the sun has sunk below the horizon. With respect to the first, our indigenous botany furnishes us with numerous examples. The plants which exhale their odoriferous principles during the night, or after the decline of the sun, are not so numerous, though sufficiently so to have come under the notice of most observers. I must not, however, forget to state that by far the largest number smell most powerfully as evening approaches; but when I speak of night-scented plants, I allude to those particularly which are fragrant only in the night, and do not as such emit any odour during the day. A moist atmosphere favours the diffusion of the odours of plants, but this I apprehend does not arise so much from the union of the vapour in the air with the odoriferous exhalations, or from the density of the atmosphere, or from the fitness of the latter so circumstanced to disseminate them, as it improves the health and vigour of the plants themselves, thus in a secondary manner increasing their powers for giving off a superabundance of this important secretion.

It is possible, however, that all these conditions may come into operation, and in that case we can very well explain why so large a proportion of plants are more strongly scented in one part of the day than another. The volatile oils are diffused as fast as they are secreted; and hence again their odours must be most perceptible, whenever the odoriferous oil is very abundant, which can only happen when the several circumstances promoting their secretion are conjoined. If, then, moisture, as has been shown, be one great cause, then will the plant generally be fragrant towards night, at which season the dews, &c., are most profuse. If dew is not deposited, it is highly probable that the atmosphere itself is moist, or that rain may fall; in either case we at once ascertain why their scent is most powerful at sunset or towards evening. The odours of plants, arising as they do from their volatile qualities, must necessarily be often wafted in the direction of winds: hence the grateful perfumes which are occasionally perceptible on one side of a flower-bed, and not on the other; and the same agency may possibly in some measure occasion a greater amount of odoriferous matter being evolved, because at this time, instead of saturating the air around the plant, it is carried away as fast as it is formed, leaving room for further exhalation.

There are a number of plants and flowers which emit no scent during the day, but which smell powerfully in the evening and through the night. We cannot very well explain the nature of this phenomenon, because it happens independent of the moisture or dryness of the air, or whether they are exposed to it or not. When the scent is evolved from the flower alone, it can scarcely be exhaled, unless the latter is expanded; and since some open their corollas at night, their fragrance must necessarily be nocturnal. This only holds in a few cases, for many, whose flowers are open both day and night, smell only during the latter season. Plants of this character are not so numerous as those last under discussion; but still they have always attracted much attention from botanists: the names of many are mentioned in the catalogue. Linnæus, who was gifted with a somewhat poetical temperament, denominated night-flowering plants "flores tristes," or melancholy flowers; notwithstanding that this was not their only characteristic, for it will be perceived that they belong to various families and tribes, as distinct as they well can be. The odours of most, if not of all, are nearly similar, and very delicious, and their flowers generally partake of a brownish, greenish, or yellowish tint. Amongst the night-scented flowers, I may enumerate the—

1. Asperula odorata.
2. Galium verum.
3. Œnothera biennis.
4. Daphne laureola, at which time it smells like saffron.
5. Silene conica.
6. Silene nocti-flora.
7. Linnæa borealis.
8. Matthiola sinuata.
9. Hesperis matronalis.
10. Orchis bifolia.

The second, fourth, sixth, ninth, and tenth, commence evolving their peculiar odours in the evening after sunset, and probably, like the lonicera periclymenum, are somewhat indebted to the density of the atmosphere for a

part of this property. Added to this, there are several exotic night-scented plants, a few of which it will scarcely be out of place to allude to. In the number, I may just mention the—

1. Mesembryanthemum noctiflorum.
2. Pelargonium triste.
3. Hesperis tristis.
4. Cheiranthus tristis.
5. Daphne pontica.
6. Crassula odoratissima.

I might count up many others, had I not already adduced a sufficiency to illustrate what I wish to show.

Several plants only exhale their peculiar odours when touched, trodden upon, or bruised. Thus, the cynoglossum officinale when touched, emits a nauseous scent like that of mice, or, as some say, the urine of dogs. The chenopodium olidum is similarly influenced: those which require to be bruised or trodden upon before they become odorous, are the—

1. Atropa belladonna.
2. Euonymus Europæus.
3. Myrrhis aromatica.
4. Sison amomum.
5. Coriandrum sativum.
6. Cnidium silaus.
7. Allium ursinum.
8. Agrimonia eupatoria.
9. Reseda luteola.
10. Erysimum alliaria.
11. Acorus calamus, which last smells like myrtle.

A few, as the galium verum, the hesperis matronalis, and the tilia Europæa, are most fragrant when the weather is damp and wet, or towards evening.

Again, there is a class of indigenous vegetable products which never give out any scent, except when dry, or in the act of drying, or what is more correct, they invariably smell stronger at this time than any other. I allude particularly to the—

1. Anthoxanthum odoratum.
2. Asperula odorata.
3. Hyoscyamus niger.
4. Melittis melissophyllum.
5. Orchis bifolia.
6. Orchis conopsea.
7. Corallarrhiza innata.
8. Salix petiolaris.

The first, second, fourth, fifth, and sixth, when dry or drying, smell like new hay, and in fact, to the presence of some of them, particularly of the first, hay at this time owes all that delightful fragrance which it possesses. In addition to the odour of hay, the asperula odorata smells somewhat like bitter almonds, or the heliotropium peruvianum, and it retains this flavour a considerable time. I have had specimens in my herbarium for two years, and they are as powerfully scented at this moment as when just deprived of their moisture. The melittis melissophyllum has the smell of woodruff, or vernal grass; and the orchis bifolia and conopsea emit a scent when drying similar to that of the asperula odorata, the anthoxanthum odoratum, or the clove pink. The fœtor of the hyoscyamus niger is most disagreeable when dry; to myself it is quite insupportable. The corallarrhiza innata, under like circumstances, exhales the sweet and powerful scent of vanilla, which is not entirely lost after the specimens have been preserved for twenty years. The salix petiolaris, especially its young leaves, gives off a strong scent, like the flavour of bitter almonds after gathering, but less agreeable.

Having thus shown in what the odour of plants consists, at least so far as our present knowledge of the subject will permit, and also under what circumstances, and at what period of the twenty-four hours certain specimens exhale their characteristic odours, I must now betake myself to the third division of my subject, and point out to the reader the indigenous plants which throw out any emanations disagreeable and injurious to the animal senses. This head is of the first-rate importance; and though it will not detain me long, yet it will require to be discussed with all possible care. Prior, however, to particularising their names, I may just state that it is not my intention to enumerate all that are disagreeably scented. I shall confine myself to such as would seem to exert a powerful influence on the system, depending more or less on the nervous susceptibility, and on the peculiar idiosyncrasy of the party affected. Those plants which are merely disagreeable, and not otherwise injurious as regards their scent, will be treated of generally towards the conclusion of the present head. Amongst the plants whose smell has a pernicious tendency, I may mention the following, all of which are indigenous to this country. The—

1. Viola odorata.
2. Hyoscyamus niger.
3. Œnanthe crocata.
4. Sambucus ebulus.
5. Hyacinthus racemosus.
6. Berberis vulgaris.
7. Daphne mezereon.
8. Daphne laureola.
9. Saponaria officinalis.
10. Spiræa ulmaria.
11. Ulex Europæus.
12. Humulus lupulus.

There are few individuals who do not suffer more or less when subjected either purposely or accidentally to the odoriferous agency of these plants.

Pleasant as the perfume of the viola odorata may feel when first applied to the nostrils, it imparts a disagreeable sensation if continued long, ending in sick headach. This especially happens when the party thus affected comes into the vicinity of a flower-bed, where the species of violet in question forms a large proportion. In a churchyard

at Clontarf, near Dublin, it is customary to plant the earth covering some of the graves with this beautiful, though not innocent, flower; on visiting which during the spring, when the viola odorata is in bloom, I have repeatedly been inconvenienced by the sort of headach alluded to, and have invariably traced my sufferings to the effects of the odour emanating therefrom. Independently of this, its odour is much esteemed. The hyoscyamus niger is particularly oppressive, and this is the case, too, when dry: the whole plant is covered with unctuous fœtid hairs, producing a strong insupportable odour, greatly affecting the head of some persons, as soon as they come within its atmosphere. Linnæus says, that no animal, save the goat, will touch it. The roots scattered about the house will drive away mice. In a recent state the odour of the leaves occasions stupor and delirium.

The œnanthe crocata emits an offensive and fœtid smell, the roots particularly. Mr. Ehret, the botanic painter, while he was drawing this plant was rendered so giddy by the effluvium, that he was repeatedly compelled to quit the room, and walk out into the fresh air to recover himself.

The sambucus ebulus, or dwarf elder, is so nauseous, fœtid, and noxious, that our ancestors supposed it to have sprung from the blood of their brutal enemies, the Danes. This notion gained for it a variety of epithets, as wallwort, or walewort, and danewort; its smell is of that sickly and disagreeable kind, that even some of the animal part of the creation, as the mole and mouse, will not come where its leaves are laid; as such it is occasionally employed to scare away these mischievous animals.

The flowers of the hyacinthus racemosus exhale an odour like that arising from wet starch, being equally heavy and unpleasant. It often occasions headach and nausea.

The berberis vulgaris or common barberry yields a faint and oppressive smell. Its flowers, however, which exhale the scent, are only offensive when near, and pleasant at a certain distance, for which reason they should not be suffered to grow in any abundance in the neighbourhood of walks. Many agriculturists, indeed, accuse this elegant shrub of causing barrenness, blight, and mildew, for which reason they will not allow it to be planted in the vicinity of their crops. It has been asserted that few vegetables of any kind will flourish well near it.

The scent exhaled by the daphne mezereon and laureola is too powerful for many people, that of the former perfuming the air to a considerable distance.

The saponaria officinalis possesses much the same character.

The spiræa ulmaria, like the mespilus oxyacantha, has a sweet but oppressive odour.

The mespilus when growing in hedgerows abundantly, will scent the air of the whole neighbourhood, thus occasioning much uneasiness and inconvenience to those who may approach them.

The ulex Europæus is a rather peculiar plant, so far as its odour is concerned. When the flowers are in full vigour, the scent arising therefrom imbues the air to a considerable distance. It is intolerable to myself, somewhat resembling the smell of honey. On approaching the heaths and hills, where it grows in quantity, this smell is perceptible long before the ground is attained. On the southern side of the hill of Howth, near Dublin, where the whin is extremely luxuriant, the insufferable odour alluded to is felt in all its perfection.

The humulus lupulus is well known for the soporiferous exhalation which it emits when dry: as such, a pillow stuffed with this material has occasionally been laid under the head to promote sleep in fevers accompanied with delirium, and in maniacal affections. The experiment was tried with success in the case of George the Third, in whom sleep was thus produced when many other remedies had failed. Dr. Montgomery, of Dublin, mentions an instance where a lady had been perfectly sleepless for upwards of four weeks, during a fever, occasioned by sudden and distressing news; and in whose case, after every means had been resorted to in vain to procure sleep, her physician proposed the trial of a hop-pillow, and the consequence was an undisturbed repose of fourteen hours, from which she awoke not only refreshed, but free from delirium; and from that time her convalescence was progressive. Other vegetable productions might be tried in the same way.

In connection with the preceding examples of the influence of odoriferous plants upon the animal economy, I must not omit to mention a few others, whose effects are less general. These only operate on certain individuals of great nervous susceptibility and peculiar idiosyncrasy. There are few persons who have not noticed how readily some perceive an odour, to which others are nearly or entirely insensible, notwithstanding that their sense of smell is far from deficient. Thus, nervous females are particularly liable to become sufferers wherever certain flowers are kept, and these may be either strong-scented or otherwise.

I have already mentioned the influence of the viola odorata upon myself. Linnæus asserts, that the scent of the nereum oleander, or rose-bay, proved fatal in one instance.

The prunus laurocerasus, containing as it does so much hydrocyanic acid in its leaves, has ere now given rise to the most disagreeable consequences. When wasps, &c., are placed under the receiver of an air-pump, along with the leaves of this shrub, cut into small pieces, they become completely stupi-

fied in a few minutes. In this experiment the glass, for a sufficiently-obvious reason, must not be rendered air-tight.

The celebrated botanist, Sir James Smith, was peculiarly affected by the odour of the honeysuckle, not, however, in the open air, but when the flower was in a room. His temples throbbed with violent pain, and sickness and partial loss of recollection followed, which would, doubtless, have terminated in complete syncope, if the cause had not been removed. Some flowers, whose fragrance much resembled that of the woodbine, did not annoy him in the closest apartments. Nausea, and a feeling of suffocation, resulted from being in a parlour in company with the flowers of the iris persica, though at the same time he could not perceive any scent to arise from them. To many, however, their smell is particularly agreeable.

The lilac, white lily, Peruvian heliotrope, carnation, the Portugal laurel, polemonium cæruleum, mignionette, rose of Sharon, and many others, though pleasant enough in the open air, are attended with distressing sensations in the house, even in the strongest constitutions. Many persons, though the source of annoyance be not visible, immediately become sensible of its presence, from the intolerable effects which it has upon them.

To myself, the lily is unusually distressing in a room. I am aware of its presence in a basket of flowers in the course of a few minutes, from the faintness and other disagreeable feelings which it occasions; and so soon as the cause is taken out, all these, which threatened to end in syncope, disappear.

Again, linseed in decoction, roses, pinks, betony in flower, walnut, elder, black hellebore, and colocynth, when pounding, &c., are accompanied in some cases with the worst symptoms. Syncope, insensibility, and tumefaction of the face, in the case of a French lady, resulted from being present where the decoctum lini was in the course of preparation.

Violent cephalalgia and fainting always attacked M. Vincent, a French painter, when remaining in any room where roses grew: a sense of suffocation, loss of voice, and Ledelius says ophthalmia, originated from the same cause in the respective instances of a young lady, a surgeon, and a merchant.

According to M. Valtain, a bouquet of pinks threw an officer into convulsions, which ceased when the flowers were removed, and the windows opened. For twelve years after the officer could never inhale the smell of pinks without falling into syncope.

The odour of betony, in flower, is said to intoxicate those who gather it.

Reposing under the shade of a walnut or elder-tree, is reported to be followed by sleep and headach.

The odour of black hellebore and colocynth produces purging in those who powder them.

The vapours exhaled from perfumed gloves and certain torches, proved fatal, according to historical reports, to the French Emperor, Henry the Fourth, Pope Clement the Seventh, and a Prince of Savoy. M. Barthelemy mentions a serious case of convulsions in a lady, as the consequence of being shut up in a room where roses, lilies, pinks, and honeysuckles were kept. On removing them she was no longer afflicted. A nosegay of honeysuckles worn in her belt on a certain occasion afterwards, was succeeded by a constriction of the throat, which did not relax itself until the flower was thrown aside.

Such, then, are the plants whose exhalations exert an injurious tendency upon the animal economy. But in addition to these, there are many others which, if not exactly baneful, emit a most offensive odour. All the fœtid plants are of this character, especially those which only smell on being touched, bruised, or trodden upon. There are numerous others that do not require any operation of this kind to bring out their odours, but which exhale them as plentifully as if they were the most fragrant and aromatic scents. Amongst these I may mention the—

1. Verbascum blattaria.
2. Datura stramonium.
3. Cicuta virosa.
4. Chelidonium majus.
5. Papaver somniferum.
6. Lamium album; and many others.

I take particular notice of them, in order that the reader may form a proper idea of their character.

Another class of plants, very numerous, indeed, emits a sweet or aromatic scent. A few require bruising before the odour in question is thrown out, as the—

1. Myrrhis aromatica.
2. Acorus calamus.
3. Agrimonia eupatoria.
4. Galeopsis tetrahit.

Others, as most of the compositæ, labiatæ, and primulaceæ, give out their odoriferous effusions at all times, and under all circumstances. A few have a musky scent, as the—

1. Solanum nigrum.
2. Adoxa moschatellina.
3. Bartsia viscosa.
4. Erodium moschatum.
5. Malva moschata.
6. Herminium monorchis.

The juice of the peucedanum officinale sends forth a strong sulphureous odour. An instance is alluded to in the catalogue where, on the authority of an American physician, it is asserted that the æthusa cynapium loses its fœtid scent in his country when transplanted. Its seeds, however, when transmit-

ted from England, produced a plant with the same nauseous garlic flavour as those in Great Britain. It has also been observed by Sir James Smith, that the flowers of the hesperis matronalis lose their scent in America after the first generation. These are curious facts in connection with the odours of plants, and are well deserving of further elucidation.

It now becomes my task to notice, in the last place, how these different odours act, and the best method of remedying any unpleasant symptoms which may arise. Little, however, will be required further, inasmuch as I have already alluded to several circumstances which ought, perhaps, to have been mentioned here. Their mode of action may be inferred from their effects. Thus we have seen from numerous preceding statements that numbness, palpitations, syncope, convulsions, cephalalgia, aphonia, giddiness, faintness, nausea, several other nervous symptoms, and at last asphyxia, may result from being in an apartment where there are pots filled with odoriferous flowers, &c. All these symptoms arise from greater or less nervous susceptibility, and accordingly sometimes the stomach may be primarily affected, and sometimes the head; or the latter may be the consequence of, or in conjunction with, the former. When the stomach first suffers, the odour of the flower operates like the scent from any other source, be it ever so disagreeable, upon the delicate nerves of the stomach, producing faintness, nausea, and ultimately syncope. When the head is the first sufferer, we have giddiness, cephalalgia; and again, these may be preceded by the stomach affections just alluded to, and all may terminate in perfect asphyxia. The numbness, aphonia, palpitations, syncope, and convulsions are purely nervous symptoms, produced by the shock which the odour in question exerts upon a highly-sensitive temperament. When we hear of a stout man having been greatly distressed by a single carnation, concealed behind furniture, in a spacious airy apartment, how can we otherwise explain the phenomenon than by attributing to the individual some peculiar disposition, which medical authors have styled by a variety of epithets.

The treatment divides itself into the preventive and curative. The first consists in avoiding all such annoyances, and by never allowing flowers to remain in the apartment where the party liable to suffer may be sitting. When labouring under the symptoms produced by odoriferous plants, the first thing to be done by the lookers-on, or by the medical gentleman, is to have the flowers removed, and the windows and doors of the apartment thrown open, so as to cause as much fresh air to enter the room as possible. Water may be sprinkled in the face if sickness or syncope be present, and some volatile preparation of ammonia occasionally held to the nostrils. These little offices will generally be accompanied with success; but if the case has extended further, and giddiness, cephalalgia, convulsions, and other symptoms indicative of the approach of asphyxia, have manifested themselves, then the treatment will require to be more energetic. Leeches are to be applied to the temples, or blood may be taken from the arm, if requisite; and the bowels must also be properly attended to. In a word, the treatment enforced must nearly resemble that which is had recourse to when the system is suffering from the inhalation of carbonic acid, or any other noxious gas. The parts numbed should be repeatedly rubbed. The voice will usually return as the other symptoms give way. Our depleting measures must, however, be very carefully managed; for parties so readily affected by odours will not always bear active antiphlogistic treatment. Many, particularly females, will require medicines to improve the tone of the system. The proper conditions, however, for either these or any others, can only be learnt at the bedside of the patient.

Simple as the subject may appear, yet the fact of certain individuals having lost their lives from the inhalation of the odours of flowers, will constitute a sufficient apology for my having written so long an article. It must be manifest to every one, if we at all believe in the economy of vegetables, and in the functions which have been ascribed to them, that wherever flowers and plants are kept, there will the circumambient air be more or less adulterated, or otherwise deprived of some of its essential constituents. Thus flowers will impart their own exhalations, which, as has been shown, may be noxious or not; whilst, again, they may emit a sufficiency of carbonic acid to render the vicinity of them perfectly unfit for the support of respiration and animal life. As the other properties of some plants are known to be poisonous, so may their odours be attended with similar consequences; and thus, like the scent of hops, walnut, or elder, produce narcotism, and a variety of other unpleasant symptoms. The vicinage of extensive forests, and other situations which are planted with trees and shrubs, may possibly owe some portion of their unwholesome character to the odours arising therefrom. In hazarding this supposition, I do not lose sight of the damp and insufficient ventilation which usually predominates in these localities, and of course are attended with their share of evils; but still I would wish sufficient importance to be attached to the opinion which I have now promulgated, and this, too, independently of the effects which the carbonic acid of plants may exert on the constitution, for I am now speaking particularly of their characteristic odours. So much being granted, it will be perfectly

understood how necessary it is for all parties to avoid such localities, and to keep out of the sphere of the odoriferous exhalations from plants and flowers; for, like many of the gases with which chemistry has rendered us familiar, if they are not exactly poisonous in their nature, several of them deserve the reputation of being highly pernicious.

ON THE

SUBJECTIVITY OF DISEASE.

By W. Hughes Willshire, M.D., M.B.S., Physician to the Fore-street Dispensary, &c.

(Continued from page 257.)

From the statement made at page 120, namely, that under certain conditions the whole healthy cellular life of the organism may become so changed, that death will ensue before such altered vitality can become apparent to us by any plastic operations, it appears deducible that we can approach one step nearer in generalising on the nature of certain diseases to which the healthy organism is liable; and further from but a slight modification of another proposition, that the nearer approach the life of the cells makes towards an universal change throughout the general system, the less chance is there that there shall ensue a second isolation or retrocession back to health, it appears why many of such diseases are nearly beyond the limits of the remedial art. Let the more practical department of medicine be propounded synthetically, and we shall find that *therapeutics*, or the knowledge of the resultives of the actions of certain agents on the body, must be the first step of the synthesis, and that such knowledge is more or less sure, more or less available, according as it is deduced from evident plastic or formative phenomena; for so we can the more depend upon the administration of *elaterium* than we can upon *valerian*. The knowledge of aberrations of the body, or parts of it, from preconceived standards of a normal condition, is the second; and this knowledge, like the former, is so much the more valuable as it is deduced from decided formative operations, for so much the better can we reason on *pneumonia* than we can upon *tic-douloureux*. Thirdly, the application of special agents to special forms of aberration deduced from such previous knowledge, and guided by what we know of the primitial departments, such as physiology, chemistry, &c., but which we have here chosen to separate from the mere practical portion, is the terminal link of the series.

It will be found, then, that our surety in practical medicine depends most materially upon the former two kinds of information, and especially that those diseases in which the aid of medicine is of least value, are those which are but equivocally or not at all marked by decided plastic operations. It is true, that this only expresses a *general rule*, and to which there are, no doubt, apparent exceptions, as there are diseases whose characters are essentially marked by their structural derangements, and which, nevertheless, are almost beyond the powers of the remedial art. Take *phthisis* as an example, in which every stage is characterised by such definite phenomena; but even here, though the victims of its ravages cannot be snatched from out its grasp, yet, pathologically speaking, we know a great deal about it; we are aware of the peculiar tendency of life which the whole organism assumes, and which leads us to reason *à priori* upon its very probable supervention. We are aware of the peculiar formative power assumed by the cellular life of special organs of the body, and are cognisant of its transitional states of life unto death; and though its fatal tendency is sure, when once its due degree of intensity is attained, yet from the pathological information just now expressed, we are able, to a certain extent, under certain conditions, to prevent it springing up in a concentrated form. Nevertheless, look generally upon known morbid conditions of the blood, and its irregular distributions; take such diseases as result from abnormal modes of life, going on in secerning and elaborating organs, and which evince themselves to us by evident plastic phenomena; look upon such conditions of organismal life as are accompanied by effusions, adhesions, and ulcerations, &c., and such diseases will be found to be those which are most under our control. On the other hand, pass in review those affections not definitely and at once marked by such changes as necessary accompaniments or consequences; note, *hydrophobia*, *chorea*, certain forms of *epilepsy*, *tetanus*, &c. &c.; and of what are we *sure* concerning them? of what of their plastic and formative conditions are we aware, and of what value is medicine in affording alleviation to them? Again, note those diseases which, though certainly *accompanied* with some structural alterations of one description or other, and this almost always, but yet so changing and alternating, so different and various, that it is disputed by every one which is to be looked upon as the true, and the certainly indicative, and of what is the value of medicine to them. Has it not been, and is it not maintained, that a "*medicine expectante*" is better than a "*medicine heroique*;" thus tacitly allowing that medicine, in fact, has no great power over the diseases in question: that *fever*, with its Protean forms, will run on unchanged, and that the powers of art are but, at the most, alleviative, and not subversive of the diseased vital tendency. Be, however, a special form of plasticity un-

wittingly seized upon in such disease as its true characteristic, whilst in reality it is unknown to us, even if there be one, and acted upon therapeutically, almost to the exclusion of other indications, the result is but unfavourable; for whether with Broussais we exalt the intestinal canal, or with another the brain, to an undue eminence, we do but err. In many of those diseases which we have cursorily mentioned (which, though some depending upon nervous agency, does not militate against our theory), the most strange circumstances are seen: the most violent bodily disturbance and excruciating agony have existed for many hours, or even days, and yet no change of formation has appeared on *post-mortem analysis*; the most strange and peculiar muscular contortions and movements have for a time existed, and, as we are led to believe, without being accompanied with structural alteration or new formative phenomena; and the disease, moreover, has either been irremediable, or may have itself ceased, though apparently uninfluenced to such termination by anything we have derived from art.

Now in such diseases, some of which are always unaccompanied by plastic changes, satisfactorily proved to exist necessarily in the chain of causation and effect; and in others, which, though accompanied by certain phenomena, yet are generally denied to be *essentials*, are we to believe that more minute investigation will unfold that which we desire—it yet existing, though hitherto unknown to us? We would answer, that in many of these diseases so peculiarly marked we see the truth of the first proposition mentioned in this paper, that mere alterations of cellular life, not sufficiently progressive to produce *formative* changes specially their own, are yet able to produce evident disease, and to cause the system to succumb; and further, that it is the very nature of this particular life that it never can produce such results, because it exists but as a tendency to such, and that, therefore, as regards their *own essential* pathological anatomy, they are non-entities.

From many of these diseases having distinct marks of periodicity, apparently leaving the body for some time more or less in a healthy state, or being accompanied with intervals of repose, it would appear that the change of cellular life which constitutes the disease, has at one time almost the mastery over the healthy life of the general organism, and which degree of mastery is indicated by the power of the period of activity, its length of duration, or its frequency of accession; and that the interval of repose is brought about at last by such diseased life, being unable to keep up its existence, it being overpowered by the healthy. But it may never entirely depart from the body, but at another period will again supersede the other, burst forth, and hence give rise to a renewal of the phenomena. It may be that isolation of cellular life becomes so extensive, that the diseased life completely negatives the healthy, by giving the universal organism a new tendency, which is, to what we call death. Though in many diseases, therefore, the whole organism will pass, and, as we believe, must ever pass, from healthy life into the life of death, without leaving traces of structural alteration, yet other diseases, though as equally unaccompanied by such phenomena, which are specially their own, or parts of their own essence, will, nevertheless, be often connected with visible pathological alterations, but whose origin is to be explained in a separate and distinct manner. It would appear that whilst more or less of the organism is suffering generally under a certain form of diseased life, its intensity in different portions of the body may be so far overpowered by another form of diseased life, that when exposed to the exciting causes of the latter, such new and secondary form may readily arise, it being essentially distinct, however, from the primary form of disease, and often leaving behind it, or being accompanied by, distinct plastic operations. The special form of such secondary disease is influenced by numerous circumstances, by what we call the constitutional tendency of the body, by season, by intensity of the existing exciting causes that may at the time be dominant, and many other similar conditions. Thus the system, labouring under the general diseased life called *fever*, in warmer countries than our own, is more liable to succumb to the exciting causes of certain diseases of the liver and spleen, and also to those of the intestinal canal; which latter fact is even exemplified by the circumstance that this portion of the body exhibits more unequivocal plastic changes in fatal cases of continued fever at Paris than in London, and more in London than in Edinburgh. Whilst in fever arising in winter and spring, and in colder latitudes, affections of the organs of respiration are liable to be induced. Such facts, and numerous others that might be adduced, proving that whatever morbid changes of formation may be connected with certain diseases of the body, and of which it is said to die, they are not to be looked upon as the essence of such diseases, but as the characters of secondary ones, to whose exciting causes numerous circumstances have forced the generally diseased organism to succumb. Again, though many diseases, with relation to the scalpel of the pathologist, are actually non-entities when we leave out of the question the secondary ones, they are accompanied by circumstances peculiar to themselves, and which are evinced by the phenomena of many contaminating and infecting agents. Thus the altered cellular life, or tendency to such life, can be given off by the one body, and will impress the same alteration upon and cause it to pervade the general system

of another body, with which it may enter into contact, as in *hydrophobia;* for instance, where the saliva of a rabid creature brought into connection with a wound, gives rise to the disease in the subjected person. It is also probable that the contact of any portion of such diseased organisms (in many diseases at least) with a previously healthy body, is equally able to communicate the disease as that of any special part is, as the saliva above mentioned; for in this disease which we have brought forward to illustrate our views, it is stated by Selig that *hydrophobia* followed the use of a rabid dog's fat as an ointment; and Hertwich, who made experiments with the blood, says it is equally poisonous with the secretion from the mouth. Although many diseases are thus always connected with such poisoning powers, we cannot believe that their infecting molecules are to be looked upon as definite structures, or plastically-formed bodies, they being only *tendencies* to a peculiar life of cells. (Vide page 256, 7.)

Believing, then, that the search after structural changes in many diseases is but one after what does not exist, we shall revert to the remark before made, that such diseases are generally much less under the influence of medicine, as it at present exists, than those diseases which are known to us by definite structural changes and formations. Of course, it is here not meant to be maintained that, from the little control medicine can thus exert, such diseases necessarily run on to fatal terminations, for in many cases quite the opposite is the fact; but in these the return of the organism to a healthy cellular activity, has apparently been very little or not at all influenced by the remedial art. In the first place, then, the value of our science to us, *practically* speaking, is only felt by the world at large, in its exemplification as an *art*, and the value of it as an art depends essentially upon the degree of tangibility of the scientific principles upon which it, as an *art*, is founded. If the steps of the synthesis we before evolved are true and just, both in themselves and relationships, it is evident that such tangibility of principles mainly depends upon their being illustrated by plastic phenomena, and that our practice resulting from our reasoning upon such is surer and better the more distinct such phenomena themselves are. It is true that writers may be found who have drawn distinctions between what they have called *functional* and structural diseases, and in their treatment of the former have reasoned upon phenomena whose tangibility was in its essence essentially different from those of the latter, but from the attention of physicians in modern times being so particularly directed to the elucidation of structural alterations; and from the fact that (as one of the most philosophical writers on medicine in this country remarks—Alison, of Edinburgh) "the term pathology has of late years been much employed in this country in a more restricted sense as nearly synonymous with morbid anatomy, and that what were formerly called morbid appearances, left after any disease, are now frequently (although with little attention to etymology) termed pathological appearances,"—it has resulted that sufficient attention has not been paid to such phenomena so as to render them sufficiently and surely available, at least so much so as are found to be the others. From a want of research on the one hand, and the extreme one-sidedness of its exertion on the other, combined with the obscure nature, no doubt, of those principles of our science which cannot be deduced from formative phenomena, it has resulted that the value of the *art* of medicine chiefly rests upon the surer principles at first alluded to. Though we believe that research, patiently and laboriously continued, will do much to render us greater masters than we yet are of the principles of our science, not deduced as mentioned in our synthetical proposition; yet we believe it is in the very nature of it that our practice upon such principles will always be less sure than that founded on the converse ones. From what we have just stated, and previously remarked, some reason then appears why medicine as an *art* is not available so directly in the treatment of many diseases as it is in others. Another reason apparent to us is this, that many of these diseases are affections excessively general in their nature, consisting of an altered cellular activity of a very great portion of the organism, and of that highly important part of it denominated by Dr. Copland *the organic nervous power*, or else of the nervous system generally. That instead of the isolation of the individual cells being only partial, there is a very extensive one, and a powerful striving of the diseased cellular activity to supplant the healthy cellular life of the general organism. We shall find that the laws ruling the practice of the physician in those diseases of which he is so much the master, resolve themselves very much into the very general one of *equiponderation;* for into such may be reduced derivations by cathartics, discharges by diuretics, irritations by vesicants, sinapisms, and cauteries, &c. &c., and which can scarcely be called into a requisition which is of great value where an *universal* cellular activity has to be altered or subverted, as is the case where only a partial isolation has to be *equiponderated;* and this would appear to be another reason why such maladies are more beyond our grasp. In these cases there is a very primitive, almost primordial, form of diseased life to combat with; and we are either in the dark as to where it first commences, so that we can effect no equipreponderation of special organs or fluids, or else it may be so general as never to have any local or topical individuality, save

that of an universal *cellular* one. In many diseases, however, accompanied with structural phenomena, the difficulty of associating the latter with what is generally called their cause is sometimes great, but more often this appears to be increased by our reasoning in these instances quite in the way we should not, and in viewing the disease in connection with too general a systematic change of some fluid for instance, when we should connect the formative conditions of the disease with the change of a local form of life or topical individuality. Thus, it would appear to us, this error was committed by one of the speakers in a late discussion at a medical society upon the origin of *biliary calculi*, and at which we were present, it being stated that the blood was in fault; that "the liver was merely the machine by which it (the bile) was eliminated," and that acting upon this organ by medicines was not what was indicated. Now, the enunciation of this doctrine, and resting on it, leads us no where; it forgets that the blood only plays the part of a mediate agent in all formative operations, and that the cells themselves, by virtue of their plastic and metamorphosing powers, undertake all structural arrangements (vide LANCET, page 119). It passes over the fact that the liver performs an assimilating as well as a secreting office. (Vide Copland's Dictionary, page 395.)

It is evident, however, that the occasional difficulty of associating structural changes, when they do occur, with a diseased local cellular activity, renders such maladies almost as little under the control of medicine as many diseases which are never evinced to us by plastic phenomena; reducing them, in fine, to the nature, at least as far as relates to our practice, of those classes of vital aberrations which it has been the aim of this paper somewhat to illustrate. That this arises, as we have just remarked, partly from our own occasional false reasoning, may be and is, no doubt, often true, yet the result is the same, for on merely referring to the ablest *resumé* on the formation of biliary calculi, we find it remarked, that "although all English practitioners are nearly agreed as to the treatment during the paroxysm, little appears to be known respecting the best mode of preventing the formation of these calculi." (Vide LANCET, page 370.)

As affording some illustration of the views endeavoured to be propounded in the present and two previous papers (pages 118 and 254), we would refer to some remarks of Dr. Penkivil (LANCET, p. 467), to a paper by Mr. Busk, in the tenth number of the "Microscopic Journal;" and to some observations at page 490 of THE LANCET, June 26th, 1841.

ON THE

PRINCIPLES AND TREATMENT OF PULMONARY CONSUMPTION.

By T. WILSON, M.D.

FROM due observation and reflection on the various causes which give rise to the formation of tubercles in the lungs, I find them to be mostly of a debilitating character, either acting on a constitution strongly predisposed to their development from hereditary taint, or on one in which the temperament displays more than an ordinary degree of nervous susceptibility; therefore, to diminish nervous irritability, and improve the general tone of the constitution, I have found in the majority of cases to be the most successful treatment. With the object of relief or cure, beneficial results can never be expected to accrue from the inhalation of creosote, chlorine, or tar-vapour remedies, whilst the constitution is at the same time lowered by general or local depletion. As to the inhalation of iodine, I sanction it as a therapeutical agent in consumption; but it should not be used when much pulmonary irritation exists, or scrofulous inflammatory action is going on: I have always used it in a very diluted form, and if combined with a pure saturated solution of conium, its efficacy is much increased; but due discretion must alone guide the use of so potent an agent. I consider the action of inhalation to be twofold: first, by expanding and dilating the minute bronchi and air-cells to a greater extent than by ordinary inspiration, and thereby producing greater activity in the circulatory and absorbent systems; and, secondly, from the iodine acting as a stimulant on the indolent masses of tubercles their absorption is promoted, provided the general health is at the same time improved, and the tendency to such formations diminished by judicious medical treatment; the dietary should be of a light, nutritious description, with a moderate allowance of beer, and the prohibition of all slops. Gentle exercise should also be enjoined to diminish irritation, and improve the strength and appetite. I give a mixture composed of sulphate of quinine, tincture of opium, in infusion of quassia, three times a-day, with occasionally an addition of small doses of sulphate of iron. I find this combination of the greatest value, and contrary to what might be supposed, it never tends to lessen expectoration. I have no confidence in expectorants, and I believe them to be extremely injurious as impeding digestion, and irritating the glandular structure of the intestines, and thereby producing ulceration. Another agent of great value has been lately added to the London Pharmacopœia, viz., the acetum cantharidis; but, as therein directed, it merely acts as a rubefacient, for

the acid prescribed by the college is not of sufficient strength: when stronger, it acts as a powerful and certain vesicatory, often producing vesication during its application, and in half the time of a mustard poultice. It is an invaluable contra-irritant: I have used it extensively, with most satisfactory results. I am no advocate for long-continued drains from the chest, as it weakens the system, and is a constant source of irritation. When requisite a blister should be applied, and the surface allowed to heal before the application of a second; but I cannot say I have great confidence in much vesication.

I shall now endeavour, as briefly and concisely as the limits of this Journal will admit, to lay before my readers a summary of ten cases attended by me at the West London Institution during the last six months; and in the subjoined list I have selected the most formidable and well-marked cases of pulmonary tubercles.

Case 1.—Susan Ecclebosch, aged 23, admitted August 1, married, and has had two children; the elder died when four years of age of consumption: it was after her second accouchement I was requested to visit her; she had then been ill twelve months, and had been under various medical men. She presented extraordinary emaciation; pulse 123; breathing 60; animal heat 110; expectoration of puriform matter, streaked with blood, about three-quarters of a pint daily; excessive diarrhœa and night-sweats, with extreme difficulty of articulation. Percussion and auscultation showed extensive ulceration in the right lung, which could be also discovered by the resonance of the voice on placing the fingers in the intercostal space between the second and third ribs: the left side of the chest gave indications of tubercular deposit. In this case there was a perfect absence of sonorous and sibilous râles. Ordered chalk mixture, with the addition of tincture of catechu and laudanum. Vesication to the surface of the abdomen with the acetum cantharidis. In three days the excessive purgation ceased, when she inhaled a mixture of iodine and conium once a-day, her strength not permitting its more frequent use; and she also took a mixture composed of sulphate of quinine, laudanum, and infusion of quassia.

8. Improved; now feels some desire for a little nourishment, and is allowed arrow-root and wine.

16. Much improved; night-sweats less; cough less troublesome, and expectoration diminished. Takes her medicine regularly.

29. Left her bed for a few hours for the first time; appetite improved. Takes broth, and beer twice a-day. Ordered a mutton-chop daily. Cough less; bowels regular. Continues her mixture. Pain in the right hypochondrium on pressure, but does not extend to the shoulder: pain disappeared after the application of a blister. In the course of the following month walked to the institution. The improvement in this case continues to the present day; scarcely any cough, appetite very good, tongue clean, and is now able to attend to her usual household concerns. She still continues to inhale, and take her mixture, with a small addition of sulphate of iron. I brought several medical friends to witness the extraordinary recovery in this case.

Case 2.—Caroline Homer, aged 30, admitted under my care August 3, was troubled with a cough upwards of a twelvemonth, which latterly had become much worse; had been confined to her bed for some time. Under former medical treatment, blisters and leeches had been applied to her chest with temporary relief. This patient has lost many members of her family by consumption. Pulse 106, variable; animal heat 105; expectoration puriform; by percussion the clavicular and subclavicular region on the left side give a dull sound, as also the right submammary region; in other respects the sounds were clearer than natural; by auscultation, well marked pectoriloquy under the right clavicle, and œgophony in the submammary region, occasioned by pleuritis. Ordered vesication and diuretics, to remove the effused fluid from the pleura: a light nutritious diet.

10. The œgophony and dulness on percussion had nearly disappeared; in other respects much the same. Ordered a mixture, composed of quinine, laudanum, and infusion of quassia. To take more nutrition, and to inhale iodine and conium.

17. Stronger; has expectorated some blood. Ordered the inhalation to be discontinued.

24. Inhalation resumed. Continues her medicines, and is much improved in strength; appetite good, and all the pectoral symptoms less. During the subsequent months, and up to the present date, continues a patient at the institution: follows up the same medical treatment; appetite greater than her circumstances can gratify.

Case 3.—James Clarke, aged 27, has been ill two years, admitted July 25, presenting all the symptoms of tubercular ulceration. Ordered the same mixture as in similar cases, and inhalation. Has continued his medicines to the present day; and is now so well as to be no longer an object for relief.

Case 4.—Kesiah Ward, aged 21, admitted August 5, presents all the symptoms of incipient phthisis; her eldest sister died of consumption. Under former treatment had been bled and leeched; has had a cough for six months; pulse about 95; animal heat 103; night-sweats; a hacking, tiresome cough, which much exhausts the patient,

and expectoration of frothy mucus; is so exceedingly nervous, that palpitation is produced on the slightest cause. Ordered to be vesicated in the clavicular region of both sides. Mild aperient medicines prescribed to improve the digestive functions.

12. Ordered a mixture, composed of sulphate of quinine and laudanum. Generous diet.

19. Improved; cough less, tongue clean, and appetite better. Ordered the medicines to be continued, and vesication repeated. This patient continued to improve, and increase in weight and strength; and was finally dismissed on the 27th of September, having lost all train of pectoral symptoms.

Case 5.—Nicholas Johnston, aged 41, admitted August 7, had been ill for two years with short cough and expectoration of puriform matter, occasionally streaked with blood. He considers his complaint was induced by grief from adverse circumstances; has tried many medical charities without relief; is considerably emaciated; has lost a brother by consumption; no pain in the chest, nor bronchial affection; evidence of a cavity in the left side. Ordered the inhalation of iodine, &c., and subsequently a mixture of sulphate of quinine, &c., with most decided advantage.

Sept. 14. Is much improved; cough less; strength improved; appetite very good; up to the present time is a patient at the charity; has scarcely any cough, and follows his usual occupations.

Case 6.—Maria Dixey, aged 23, admitted October 25, in the last stage of phthisis, accompanied with extensive ulceration of the larynx; extreme inability to swallow; diarrhœa, and night-sweats excessive. Ordered to try inhalation, but could not continue it. The quinine mixture was taken, with some success, for three or four days; but the difficulty of deglutition increasing, the mixture was discontinued. Vesication to the fauces; but this application produced little or no relief. The patient gradually sunk, and died on the fifteenth day after admission; no post mortem allowed.

Case 7.—Jane Chapman, aged 26, admitted October 2, presenting all the appearances of incipient tubercles; has been ill four months; of a scrofulous habit, and has a swelling of the lymphatic glands of the neck; is very emaciated and nervous; cough incessant, with an absence of all bronchial affections; slight pain in the chest; pulse 106; animal heat at times very high; appetite bad. Ordered vesication, with acetum cantharidis, and aperient medicine.

9. Pain has left her chest, tongue cleaner, and appetite somewhat improved. Ordered quinine mixture, and generous diet; tea and coffee forbidden.

21. All the symptoms much improved; appetite good. Continues her medicines, and the inhalation of iodine and conium.

Nov. 17. Is enabled to return to her usual employment as housemaid; but continues her medicines.

January, 1842. Has lost all signs of pulmonary disease, and increased considerably in weight.

Case 8.—Edward Akess, aged 17, admitted September 17, suffering under the premonitory symptoms of phthisis; is of an unhealthy, strumous habit; has large glandular swellings of the neck; slight pain in the chest. Ordered vesication; a generous diet. To take quinine mixture, with the addition of sulphate of iron.

24. Feels rather stronger, medicine agrees well with him: suffice it to say, that this patient gradually improved in appearance and strength, while the pectoral symptoms diminished; and was finally discharged cured, Jan. 5, 1842.

Case 9.—William Roberts, aged 47, admitted November 17; recommended by a medical gentleman; is confined to his bed; complains of much pain in the sternum; considers his disease was principally induced by grief from adverse circumstances; face and ears pale and blanched; tongue foul; appetite bad: by auscultation, pectoriloquy in the superior lobe of the right lung, and bronchophony in the left side with sonorous and sibilous râles. Ordered to be vesicated. A generous diet prescribed, with beer; and a mixture, composed of sulphate of quinine, sulphate of iron, &c.

27. Feels improved; his mixture agrees well with him. The general health of this patient has gradually progressed, whilst the local symptoms have diminished: he is still on the books, but is not confined to his bed; appetite extremely good.

Case 10.—Edward Matthews, aged 22, admitted September 3; by trade a cabinet-maker; has suffered for eight months with a severe cough, and pain in the chest; has tried various remedies with but temporary relief. On percussing the chest, great dulness in both clavicular regions, and a want of the natural respiratory murmur; no bronchial affection; pulse 100, at times varying; animal heat 102; complains much of rigors, and night perspirations. Ordered the inhalation of iodine and conium, and the application of the acetum cantharidis to the chest. To have a febrifuge mixture.

10. General symptoms less, and pain nearly gone. Ordered a nutritious diet, and quinine mixture.

17. Considers he is gaining flesh; pectoral symptoms less; appetite very good. This treatment was continued until December 19, when he was discharged, cured of all the

pulmonary symptoms, and very much increased in strength and flesh.

I was determined to add other successful cases to the above list, but the limits of a periodical suggest the propriety of my not infringing on the privileges to which others have an equal claim with myself. In accordance with the principles I entertain, I shall, in conclusion, give a quotation from the lectures of Professor Graves, whose great abilities have shed a lustre on every department of medical science. After alluding to a tonic treatment, &c., he proceeds to say, "In the month of January last, I recommended this prescription and general treatment to the eldest son of a gentleman of rank. His state was exactly what I have above described; and several of his mother's family had died of consumption. In a few days, his mother-in-law called at my house, and in the course of our conversation it became clear that she entertained very strong prejudices against the treatment I had recommended. Such persons, gentlemen, are all well acquainted with sulphate of quinine; ladies of fashion use it constantly to wind themselves up, when reduced to a little below par, by dissipation and late hours. What use could sulphate of quinine be to a cough? Might he not catch fresh cold from driving out at this season? Would not the meat diet tend to increase the pectoral affection? Luckily for me, this lady lived at the time in a country-house; the nearest place to which had, many years ago, been the residence of one of our richest merchants, a gentleman with a very numerous family, eleven of whom have since died of consumption. My answer to the lady, therefore, was obvious: I replied, to prevent consumption, or remove its first stages in that family, the most eminent physicians recommended a certain regimen and mode of treatment. They were anxiously confined within doors during winter, kept wrapped up in flannel in rooms maintained at a Madeira temperature, were not allowed animal food, and were bled to the amount of a few ounces at each accession of fresh cold. You, yourself, know the result, madam, they all fell victims to the complaint, and appeared to droop more rapidly in consequence of the treatment: I am pursuing in the case of your son-in-law an opposite course. She was satisfied; and the young man is now strong and healthy."

21, Cambridge-terrace, Hyde Park,
Feb. 12, 1842.

HÆMORRHAGIC DIATHESIS.

FATAL HÆMORRHAGE FROM THE EXTRACTION OF A TOOTH.

By W. A. Roberts, Esq., Edinburgh.

Mr. C. P——, of middle age, rather full-sized body, called upon me on Sunday, the 19th of December, 1841, requesting to have a tooth removed, that had given some uneasiness for a length of time; upon examination, I found the dens sapientiæ of the right side of the lower jaw loose, the crown gone, and removed it without difficulty with a pair of forceps, generally used for extracting the temporary teeth of children. It had three small fangs, the anterior one being the longest; the hæmorrhage nothing more than usual, had ceased ere he left, the alveolus being plugged with lint, wetted with the camphorated spirit of wine. At half-past four of the same day Mr. P. called again, the blood running in a continuous stream, evidently from the anterior alveolus—cleaned it out from the bottom, and filled it up firmly with a strip of lint, pressed down with a curved instrument; when full, applied a compress of cork, fitted to the part, and pressed upon firmly by the dens sapientiæ of the upper jaw; likewise securely bandaged the jaw. Ordered astringent lotions, for the hæmorrhage was again checked, the saliva coming away unstained.

At this visit the patient informed me that he had a tooth taken out a few years ago, which was followed by copious hæmorrhage for nearly three days, but was checked by the application of caustic; as also that lately his gums had bled to a considerable extent, and for a fortnight at a time. Of all this I unfortunately was ignorant until after three hours had elapsed from the removal of the root. There was nothing indicating any hæmorrhagic tendency at the time I saw him first, and, being a stranger to me, I was consequently not acquainted with the history of his habit of body.

I was sent for early on the Monday morning, and found the hæmorrhage had continued without intermission through the night. He had deferred sending for me, unfortunately, as I had requested, supposing the bleeding would stop of itself. I found no coagulum about the mouth, or in what he had spat out, as in ordinary hæmorrhage, the alveolus being as clear as when the stump was first taken away. I put a piece of lunar-caustic, the size of a pin's-head, into the bleeding alveolus, pressed it down, and plugged with sponge tent, and bandaged as formerly. The bleeding was again stopped. Styptics, lotions of kino, and alum, were used with benefit.

For more than an hour after this all appeared safe. In the course of the day, Dr. Hay, of Queen-street, the family medical attendant, saw him, and found the hæmorrhage as bad as ever. Applied various styptics without doing much good. On the 21st, Dr. Hay applied the actual cautery without benefit, attributing this circumstance to the instrument used, the first thing at hand being too thick at the point. I followed up Dr. H.'s suggestion, and used an iron better adapted to reach the bleeding vessel,

but with no good result. During the operation the patient started, by which the underlip was slightly burnt. And here I may mention, the blood continued to flow from the lip pretty freely for several days.

Our success until the 23rd was various, and on that day, if anything, the hæmorrhage was worse, and accompanied by alarming symptoms, with weak pulse, giddiness, &c. I had serious thoughts it would be necessary to take up the carotid. Towards evening an improvement took place, the bleeding being once more under command by pressure, &c. Mild purgatives ordered, in consequence of a considerable quantity of blood having been swallowed.

At two, a.m., of the following morning I was sent for, as the patient had sunk to an alarming degree. Dr. Hay and myself attended immediately; we found him recovering from a fainting fit. Wine given, &c. He rallied; and upon examination found there was now no active hæmorrhage from the original source; nor was there any afterwards. In the course of the day Mr. Nasmyth, of George-street, saw the case, which was going on favourably, with the exception of a tolerably smart oozing from the gums, and slight bleeding from the left nostril, which commenced after the hæmorrhage from the alveolus had become less active. Upon the removal of the bandages the face was found much discoloured and swollen from the effusion of blood into the cellular tissue, giving all the appearance of the result of a blow. Pulse good; countenance less anxious; getting a quiet sleep occasionally; the sloughs drying up under the use of the camphorated spirit, and latterly of turpentine, with no increase of hæmorrhage. Mild aperients given; a little wine, and the use of tonics: up to the 27th, upon the whole, continuing to improve. The oozing from the gums and nostril being occasionally troublesome, a strong solution of the nitrate of silver was painted over them with advantage. At this stage Dr. Hay and Mr. Nasmyth considered it unnecessary to continue our meetings as we had done, but to see him occasionally, Dr. Hay taking charge of the case, the patient continuing much in the same state until the 7th of January, 1842.

I had not seen the case for two days, when Dr. Hay informed me that a change for the worse had taken place—all the old symptoms, aggravated by a severe pain all over the mouth and head. Mr. Nasmyth and myself saw the patient on Sunday, the 9th, the third from the removal of the tooth, and found him much reduced; the gums turgid to a remarkable degree, and of a deep purple colour, almost covering the teeth, and bleeding freely; the blood was again oozing from the alveolus, and slightly from the nostril; the features collapsed; complained of blindness; the cheek still discoloured, and all the symptoms of the disease "purpura hæmorrhagica" more decided. Mr. Nasmyth employed a solution of the proto-nitrate of mercury to the gums, which only checked the hæmorrhage for a short time. Wine (claret) given freely; stimulants, tonics, &c.

On Sunday, the 9th, Dr. Abercromby was consulted; but although all was done that such eminent men would be expected to do, death put an end to this painfully-interesting case on the Tuesday following, being three weeks and two days in duration.

In the course of my practice I have met with several cases of severe hæmorrhage following the extraction of a tooth, but have always succeeded, with the exception of the above case, in arresting it by pressure. In one case in particular the hæmorrhage was alarming. Upon examining the mouth, I discovered a portion of the alveolar process that had been splintered; upon removing this and the clot which nearly filled the mouth, and, in fact, was acting as a poultice, and washing out the bleeding alveolus with warm water, I cut a small piece of sponge tent nearly to the size of the cavity, and pressed it firmly down with lint; over that a compress of cork, and all securely bandaged, with complete success. The heat of the mouth softens wax; but sponge expands, and being confined must of necessity press upon the mouth of the bleeding vessel. I have occasionally tried replacing the tooth with lint wrapped round the fangs, but never could depend upon it, but should think it would answer well with any of the single-rooted teeth, or bicuspides: I never had occasion to try it in any of these teeth. In passing I may remark, that in all the cases that have come under my notice, I never saw the application of the actual cautery of much service; still in extreme cases we are bound to employ it.

Duke-street, Edinburgh.

CASE OF ASCITES,

IN WHICH, DURING

A SPONTANEOUS PTYALISM

THAT OCCURRED AFTER TAPPING,

UREA WAS DETECTED IN THE SALIVA.

By Samuel Wright, M.D., Edin., F.S.A., Physician to the Birmingham General Dispensary, &c.

On the 20th of October, 1841, I was requested to visit Mrs. Rogers, who had been for five days a patient of the dispensary, under the care of Mr. Hill. On inquiry, I found that she was thirty-nine years of age, had borne three children, and though having led a very regular and temperate life, had suffered much from indisposition during the last eight or nine years: she had an unhealthy, scrofulous aspect; pale, emaciated

face, and extreme laxity of fibre. At this time she was the subject of ascites, the commencement of which she dated eight weeks back; she also told me that a tumour had formed in the right hypogastric region about six months before, and had disappeared under the treatment of a previous medical attendant, as we shall afterwards see this tumour was only obscured by the fluid of abdominal dropsy.

The abdomen was largely, but uniformly, distended with fluid, which was easily recognised by its fluctuation; the girth at the largest circumference was sixty-seven inches; there was no swelling of the superficial veins of the abdomen or legs; the distention was a source of uneasiness, but there was no pain referrible to any particular spot, with or without pressure; she had not lately felt any abdominal pain or tenderness. The face was very slightly œdematous, as also were the hands and feet; the latter had been subject to occasional swelling before the occurrence of the abdominal dropsy. There was no appreciable enlargement of the liver; she had never suffered from pain in the right side, from inflammation of the liver, or from jaundice; the heart's action was natural and regular; pulse 74; respiration clear and distinct, except in the lower part of the right lung, where there was dulness on percussion, and an obscure respiratory murmur. She complained of pain in the kidneys, which she said was aggravated by exercise, and by a stooping posture; the pain was generally confined to the kidneys, but it sometimes extended down either leg, in the direction of the great sciatic nerve; she passed urine without difficulty, but the quantity seldom exceeded two or three ounces in twenty-four hours; the secretion was pale, and nearly colourless, obscured by a few clouds of mucus, but without a trace of albumen, sp. gr. 1.026; tongue furred in the middle, and red at the edges and tip; saliva, acid; bowels costive; appetite, capricious. She was ordered spare diet; to drink barley-water, or toast-water when thirsty, and to take the following:—

℞ *Bicarbonate of potass*, ʒij;
Acetate of potass, ℥ss;
Nitric æther, ʒiij;
Tincture of digitalis, ʒj;
Water, ℥viiss.

Two tablespoonfuls to be taken every three hours with one of the following pills:—

℞ *Calomel*, gr. iv;
Elaterium, gr. j;
Extract of conium, ϑj.

Make into eight pills.

21. Somewhat easier; passed sixteen drachms of urine since yesterday, no albumen present, sp. gr. 1.027; bowels have been plentifully moved three times; tongue cleaner; pulse 78.

23. Complains of violent pain in the region of the kidneys, not extending down either leg; passed only seven drachms of urine in the last twenty-four hours, no albumen in the secretion, sp. gr. 1.028; tongue furred; pulse 82; bowels have been moved four times.

℞ *Muriate of morphia*, gr. j;
Extract of conium, ϑj.

Make into six pills, of which let one be taken every night. Let twelve leeches be placed on the lumbar region, and followed by a mustard poultice.

25. Much easier; has passed since yesterday fifteen drachms of high-coloured urine, free from albumen, sp. gr. 1.027; little pain in the kidneys; bowels open; pulse 78; tongue improved; girth of abdomen seventy-one inches. Decoction of broom for ordinary drink.

26. Nearly free from pain, but has passed only eight drachms of urine (sp. gr. 1.029) since yesterday, no albumen present; pulse 70; tongue much improved; bowels open; girth of abdomen seventy-two and a half inches. Add twenty drops of oil of juniper to the mixture.

27. Not so well; girth of abdomen seventy-four inches; respiration thoracic, and very oppressed; pulse 82; bowels very relaxed; has passed nine drachms of urine since yesterday, sp. gr. 1.029; mouth rather tender; complains that the juniper makes her sick. Omit the oil of juniper, and add an ounce of infusion of digitalis; omit also the cathartic pills.

28. Worse; has passed only eleven drachms of urine, free from albumen, sp. gr. 1.027; constant pain in the kidneys; pulse 68, irregular; abdomen seventy-five inches in circumference. The distention now interferes so much with respiration, that the patient can only breathe in the upright posture; and though the abdomen is not any where tender on pressure, yet the tension is a continued source of acute suffering.

Finding that a repetition of diuretics was useless, and anticipating an increased action of the kidneys after an evacuation of the abdominal cavity, I determined, with the patient's consent, upon the operation of paracentesis abdominis. The objections to it were a bad constitution and extreme debility; still, as the fluid was augmenting, and suffocation must have been the necessary consequence of its much longer detention, I requested Mr. Chesshire (one of the surgeons to the dispensary), who concurred with me in the propriety of the operation, to perform it on the following day. Accordingly, in the presence of Dr. Percy, Mr. Carter, and myself, Mr. Chesshire punctured the abdomen, and drew from its cavity, by a small orifice, three gallons of fluid.* The patient

* The liquid was of a reddish-brown colour, sp. gr. 1.020, at 62° Fahr. I gave a portion of it to my friend, Dr. Percy, Professor of Organic Chemistry in the Royal

was supported during the operation with weak brandy and water, and subsequently, the abdomen having been swathed,* she was ordered half an ounce of castor-oil early in the morning, and

℞ *Bicarbonate of potass*, ʒj;
Tincture of conium, ʒij;
Nitric æther, ʒiij;
Camphor mixture, ʒj;
Water, ʒviss.

Let her take two tablespoonfuls every three hours.

℞ *Muriate of morphia*, gr. ss;
Extract of conium, enough to make two pills, of which let one be taken immediately, and the other, if needful, in two hours.

31. Feels much easier, though very weak and faint; passed four ounces of urine since yesterday, contains no albumen, sp. gr. 1.025; pulse 65, feeble; respiration easy; bowels open. Ordered beef-tea, with a little wine whey occasionally.

School of Medicine, for analysis. He says, "Shortly after its evacuation, a considerable quantity of tremulous coagulum of a blood-red colour formed in it; after subsidence during the night, the coagulated matter, in all probability *fibrinous*, contracted into very small volume, and was collected at the bottom of the vessel, while the serum-like liquid alone was of the usual pale-brown colour and transparent. A portion of the liquid was filtered whilst yet warm, and a coagulum again formed in the filtered liquid." It furnished the following constituents on analysis:—

Water.....	940.5
Albumen, with probably a trace of fibrine and red particles ..	45.6
Matter extracted by water and dissipated by incineration, lactic acid, and urea	2.5
Salts, consisting of soda (probably derived in part from destruction of lactate and albuminate), lime, magnesia, chlorine, phosphoric acid, and sulphuric acid	9.6
Loss	1.8
	1000.0

* After the evacuation of the abdominal cavity, a hard and well-defined tumour, marked by a longitudinal sulcus which divided it equally, was discovered, extending from the middle of the pubic into the right hypogastric region. This was the tumour the patient complained of about six months before, and which, owing to being obscured by the fluid of ascites, she supposed had entirely disappeared.

℞ *Extract of conium*,
Extract of poppies,
Extract of dandelion, aa, ʒj;
Powder of squills, ʒss.
Make into eighteen pills; one to be taken three times a-day.

Between this time and the 11th of November the diuretic treatment was persisted in, and additionally to the remedies already tried, hydriodate of potassa internally, and rubbed over the abdomen, copaiba, bitartrate of potassa, &c., were respectively employed; the bowels were relieved by saline cathartics, and leeches were occasionally applied to the loins; still the abdomen continued to enlarge, and the kidneys failed to secrete a proper quantity of urine, the proportion never exceeded three ounces in twenty-four hours, its sp. gr. varied from 1.024 to 1.029, but it contained no albumen. On the 9th of November she complained of violent pain on each side of the face, chiefly in the situation of the parotid and submaxillary glands; the pain in the kidneys also continued; pulse 78; respiration difficult; tongue coated with a thick, brownish fur; appetite impaired; thirst urgent.

On the 11th, a profuse salivation commenced in the night, after which the pain in the face nearly disappeared. The saliva discharged was of a pale chocolate colour, slightly ammoniacal in odour, strongly alkaline in reaction, and, according to the patient, excessively disagreeable in taste. The quantity discharged in the first twelve hours amounted to fourteen ounces and a half.* After the occurrence of the ptyalism, no urine was secreted for three days, though subsequently, as will be seen, when the salivation diminished, the urinary secretion was in some degree restored.

At this time there was no pain in the kidneys; pulse 68, firm and regular; respiration easy and natural; bowels open; appe-

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* A pint and a half of this saliva was very carefully evaporated to dryness over a vapour bath, and the residuum was then digested in successive portions of alcohol until everything soluble in it was removed. The alcoholic solutions were mixed together and evaporated to one-half, when, on the addition of nitric acid, an abundance of nitrate of urea was obtained. The entire quantity of pure urea furnished by the pint and a half of saliva was ten grains. The other constituents of the saliva were—

Fatty matter.
Albumen.
Albuminate of soda.
Sulphocyanates, Muriates, Carbonates, Phosphates, } Potash. Soda. Lime.

The proportions were not determined.

tite capricious and defective; thirst urgent; tongue furred, and red at the tip.

℞ *Bicarbonate of soda*, 3iss;
Nitrate of potass, 3j;
Tincture of conium,
Nitric æther, aa, 3ij;
Water, ℥vijss.

Two tablespoonfuls to be taken every four hours. Repeat the pills.

12. Has spit twenty-three ounces of saliva since yesterday; the secretion has precisely the same appearance and characters as that examined before; slept tolerably well in the night, and was only disturbed by having to empty the mouth occasionally; pain in the face rather increased; tongue swollen, and red at the tip, but coated with a yellowish fur in the middle; thirst less urgent; scarcely any appetite; pulse 65, feeble; no pain in the kidneys, nor any disposition to pass urine. Ordered beef-tea, arrow-root, &c.

13. Ptyalism continues; twenty-five ounces of saliva have been discharged since yesterday; the secretion retains all its characters; pulse 58; sleep diminished and disturbed; bowels relaxed.

℞ *Infusion of gentian*, ℥viiss;
Tincture of bark, ℥ss.

Two tablespoonfuls to be taken three or four times a-day.

℞ *Acetate of morphia*, gr. j;
Extract of conium, 9j.

Make into eight pills; one to be taken night and morning.

14. Passed a more comfortable night; fifteen ounces of saliva have been discharged since yesterday, no alteration in its appearance or composition; no secretion of urine; pulse 70, fuller and stronger; thirst less urgent; bowels more regular.

15. Feels much worse to-day; nine ounces of saliva have been discharged in the last twenty-four hours; the secretion is rather paler in colour, and less offensive in smell and taste; pain in the loins has returned, and two ounces and a half of pale and nearly odourless urine have been voided; tongue foul, and very red at the tip; pulse 88, intermittent; thirst urgent; no appetite.

℞ *Nitric æther*,
Tincture of henbane, aa, 3ij;
Solution of acetate of ammonia,
Camphor mixture, aa, ℥j.
Water, ℥vi.

Two tablespoonfuls to be taken every four hours.

16. In about the same state as yesterday; six ounces of saliva have been discharged, contains no urea, and has a perfectly natural character; pain in the face has subsided; pain in the loins rather increased; four ounces and a half of high-coloured urine have been passed since yesterday, no albumen present, sp. gr. 1.027; abdomen enlarging; pulse 84, feeble and irregular; percussion dull, and respiration indistinct in the lower part of the chest.

18. Much weaker to-day; has passed six ounces and a half of urine; refuses food; salivation has ceased; tongue dry, and covered with a brown fur; pulse 94, feeble; respiration difficult and indistinct, except superiorly; bowels moderately open; sleeps very soundly. Omit the pills.

20. In much the same state as at last visit; eight ounces of turbid offensive urine have been voided, no albumen, sp. gr. 1.026; pulse 80; respiration difficult, and very indistinct inferiorly; percussion dull over the greater part of the chest; tongue dry and brown; legs are swelling considerably. Omit the tincture of henbane from the mixture.

From this time she gradually became worse, but without any remarkable symptom being manifested, until the 28th, when she died, having slept almost uninterruptedly during the previous thirty hours.

Sectio Cadaveris Twenty-four Hours after Death.

The post-mortem was kindly conducted by Mr. Chesshire and Dr. Mackay.

Abdomen.—The abdomen was first examined with the object of evacuating its cavity of the fluid which filled it, in all amounting to nearly two gallons: this fluid had precisely the same appearance as that which had been previously analysed by Dr. Percy, and I have no doubt that its composition was similar.

The peritoneum was extensively, but not deeply, injected, and almost universally adherent to the parietes of the abdomen and to the intestines. The gastro-colic omentum was filled with morbid fatty matter, which gave it the appearance of softened liver; in some places it was three inches in thickness. The mesentery was deeply injected, and its glands, which were much enlarged, appeared to have degenerated into soft fat. The intestines were easily lacerable, and vascular-looking externally, but their interior presented no unusual aspect.

The liver was ordinary in size, paler than usual, but not indurated, nor did there appear to be any impediment to the portal circulation; gall-bladder full; spleen and pancreas natural. The kidneys were very soft and pale; an abscess, about the size of an ordinary nut, and containing an offensive, dark-green matter, was found in the substance of the right kidney, but no other marks of disorganisation were detectable. The uterus was found occupying the situation of the tumour which had been discovered after tapping: we were unable to assign any reason for its inclination to the right side. Upon the surface of the uterus was deposited a great quantity of very soft fatty matter, into which the entire of the right ovary had degenerated, whilst the left ovary was con-

verted into medullary sarcoma. The uterus, after having been removed and freed from extraneous matter, weighed two pounds thirteen ounces and a half; it was nearly globular in form, but marked into two distinct and equal parts, by a sulcus running vertically upon its anterior surface. On cutting through the organ in the direction thus indicated, its interior was found to be occupied by two tumours; the right one being distinctly fibrous, of a grey colour, regular, and firm in its structure superiorly, but inferiorly it was softened sufficiently to break down under moderate pressure; the left side of the organ was occupied by a tumour, consisting of a dark-brown, pultaceous mass, which was evidently a malignant degeneration of what had previously been fibrous texture. These tumours appeared to have been developed in the proper tissue of the uterus, which was considerably attenuated at the fundus, where there was a mixed deposit of cartilaginous and calcareous matter. The os uteri was closed, and the membrane of the vagina deeply injected.

Chest.—There was a little adhesion of the pericardium, but it contained no more fluid than natural. Heart small, soft, and pale, but in other respects healthy-looking. The cavity of the chest on the right side contained about five ounces and a half of serum; the cavity on the left side about four ounces. The lungs were small, and crepitous superiorly; but inferiorly, throughout almost the entire of their structure, they were impervious to air; there was no hepatisation, nor any traces of inflammatory action, but the air-cells in some places appeared to have been obliterated by compression, and in others to have been filled and permanently obstructed by mucus. The bronchi were slightly dilated, and contained an abundance of mucous fluid.

The head was not examined.

Remarks.—The most interesting feature in this case, and which alone suggested to me its publication, consists in the fact of urea having been detected in the abdominal fluid and in the salivary secretion. I understood from my patient that she perceived an increase in the size of her abdomen for some time before the urinary discharge lessened in quantity, and at that time she had very slight tenderness on pressure: these circumstances, combined with the fact of there having been no distention of the superficial veins of the abdomen or legs, no disease of the heart or of the kidneys to any mischievous extent, and no disease of the liver or impediment to the portal circulation, suggest the idea that the dropsy was *immediately* dependent upon subacute inflammation of the peritoneum, and *remotely* upon disease of the uterus. This organ, notwithstanding its enlargement and inclination to the right hypogastrium, did not appear to have interfered with the venous circulation near it, and there can be little doubt that its influence was communicated by sympathy rather than by any mechanical impediment which its size and situation furnished. From the nature of the *sound* fibrous tumour of the uterus, and from the cartilaginous and ossific deposits at the fundus of this organ, it is probable that the tumours had been in the process of formation for a considerable period; and had no morbid action supervened upon the simple excess of nutrition in which they originated, it is not unlikely that they would have little interfered with the common functions of life, and that the patient might have continued in comparative health and strength for many years. Owing, however, to her depraved habit of body, the substance of the left uterine tumour became the seat of an unhealthy action, in which the Fallopian tubes, ovaries, mesenteric glands, peritoneum, &c., participated; and the result was, not an *effusion* of serum into the cavity of the abdomen, but a *secretion* of various morbid materials, which, in a solid state, might have represented carcinoma in one or other of its many forms. Yet even in this degenerate condition we see a beautiful effort of nature to relieve itself of a burden which was threatening to become deadly. From some cause, perhaps not admitting of ready explanation, though liable to much comment, the kidneys so diminished in their activity, as to be incapable of carrying from the blood a matter which was accustomed to be thrown off; though the blood could not retain this matter (urea) with impunity, yet it might with comparative safety be deposited in the cavity of the peritoneum, and its presence in the ascitic fluid may therefore be regarded as indicative of a *healthy* action, in intimate connection with one that was essentially *morbid*. To the deposit of urea in the abdominal fluid in one instance, and its discharge by the salivary glands in another, may be referred the patient's freedom from cerebral disturbance throughout the entire course of the disease.

The evacuation of the abdominal cavity for a time suspended the function that was there going on, but the kidneys being still incapable of their natural amount of exercise, an increased salivary discharge resulted, and in this vicarious action urea again found an exit. As the kidneys resumed their activity, the morbid excitement of the salivary glands diminished. I should imagine that the stimulus which the salivary apparatus had previously received from mercury, was in some degree connected with the vicarious ptyalism;* under other circumstances, per-

* I am of this opinion from the fact, that although by tying the renal arteries of a dog I have been enabled readily to detect urea in the blood, yet have I never discovered it in

haps the urea would have been discharged by the skin. However, it is a sufficiently curious instance of nature's provision in extremity, for the salivation to continue so long as the function of the kidneys was dormant, and gradually to cease as that function became restored.

It is remarkable that, with the amount of inflammatory action in the peritoneum, there should have been no tenderness of the abdomen; and that with the great distention from fluid in the peritoneal cavity, and consequent pressure upon the venous circulation in the abdomen from this source, and from the enlarged uterus, there should have been so little swelling of the legs.

The pain in the kidneys I was never able to account for. Its relief by leeching would appear to indicate inflammation or congestion, yet there was no evidence of either after death, and the abscess in the right kidney had no doubt been in existence for a long time: the alleviation of pain, and increased secretion after tapping, would refer the uneasiness to pressure from the accumulated fluid; yet the secretion ceased altogether, and the pain became greatly augmented before the fluid had re-collected in any quantity.

Great Charles-street, Birmingham,
Feb. 10, 1842.

POISONING WITH A MINIM AND A HALF OF LAUDANUM.

To the Editor of THE LANCET.

SIR,—On Monday, February 14, I delivered a poor woman of a fine female child, and before leaving her prescribed a draught, containing twelve minims of tincture of opium, in an ounce of pimento-water, with a view of relieving the after-pains. Both mother and child went on favourably until Wednesday, when, on making my morning call, I was informed by the nurse that she had given the child half a teaspoonful of the draught prescribed for the mother, in order to compose it, and prevent its crying. I immediately directed my attention to the child, and discovered it to be labouring under all the symptoms of poisoning by opium. The infant was lying motionless, in a state of profound coma, with closed eyes, pale face, stertorous breathing, cold skin, and very contracted pupils. Occasionally there was such an impediment in the respiration that the face became livid, and the child apparently dead. The pulse could not be felt, but on applying the ear to the chest the heart's action was quite perceptible. The symptoms were so far advanced, that the administration of an emetic was impossible, and even if possible would, doubtless, have been useless. Accordingly the only means to be relied upon were the use of stimulants, and the employment of artificial respiration; I therefore moistened the lips and tip of the tongue with some brandy, and rubbed a portion of the same spirit on the chest. Artificial respiration was then commenced, and persevered in, until the child was considerably revived. I then ceased, but observing that the symptoms of intense narcotism were again becoming manifest, I again resorted to the same means, and was rewarded by the same success. No sooner, however, did I stop, than the coma again supervened, and once more compelled me to employ artificial respiration. Notwithstanding the persevering use of these means for the space of four hours, the child gradually sunk, and at length died. The period between the receipt of the poison and the occurrence of death was fourteen hours. If the statement made by the nurse can be relied upon, then this child, an infant two days old, was poisoned by a minim and a half of laudanum. That the child obtained no opium from its mother's system is very evident, from the circumstance of its never having suckled. The example given by Christison of the smallest fatal dose in children, occurred in an infant three days old, who took by mistake about the fourth part of a mixture concontaining ten drops of laudanum. These facts fully prove that very young children cannot take the most insignificant doses of opium, without running the greatest risk of being poisoned. With this remark I remain, yours very truly,

GEORGE EVEREST, Student.
London Hospital, Feb. 19, 1842.

UNDILUTED CREOSOTE IN SCALDS.

To the Editor of THE LANCET.

SIR,—On the evening of Saturday, the 12th ult., I was called to see a lady who had a short time previously scalded her hand and forearm, whilst making tea, portions of which adhered to the parts. I found her in a highly-excited state, and appearing to suffer most excruciating agony, which, owing to her being of a peculiarly irritable temperament, and being pregnant, it was of importance to allay as soon as possible, especially as she had had two miscarriages a short time previously.

The usual remedies were applied, such as cotton, to keep it from the air, oil and lime-water, turpentine, liquor of lead, &c., without the slightest alleviation of the pain; when, finding that every fresh application

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the saliva, except by salivating the animals. In the latter instance I have twice succeeded in detecting urea in the saliva. I shall shortly give a detailed account of the experiments in THE LANCET.

was useless, I was induced to apply creosote in its *concentrated* state, by painting it over the burnt surface with a camel-hair pencil. The first effect produced was described as that of intense heat, which soon subsided, and in less than a quarter of an hour *all* pain had ceased. The redness and swelling quickly disappeared, and on the following morning there was no appearance of injury, with the exception of the dried-up vesicles.

I am not aware that any author has ever mentioned that creosote possessed any great sedative power when used externally in a *concentrated* form; and notwithstanding the allusion to its use (in the excellent treatise of Mr. Cormack), by Reichenbach and Berthelot, in cases of scalds and burns, for the two-fold purpose of preventing the contractions of the cicatrices, and checking the excessive suppuration attendant upon them, I find, on referring to the "Bulletin Général de Thérapeutique," for 1833, that they made use of it in a diluted state.

Perhaps some of your numerous readers may have tried it undiluted; if so, it might be advantageous were they to communicate in what kinds of scalds and burns they have found it efficacious. I am, Sir, your obedient servant,

Thos. R. Mitchell, M.D., L.R.C.S.I.,
Prof. of Chemistry to the Coll. of Civil Engineers, and Lect. on Botany and Nat. Hist. in the Dublin School of Med., Peter-street.

Peter-street, Dublin,
Feb. 17, 1842.

ALTERATION OF CATHETERS.

To the Editor of The Lancet.

Sir,—It has long struck me that the ordinary catheter, whatever its curve may be, is an unsatisfactory instrument for introduction to the bladder in any case, whether of stricture, or more particularly spasm. In the latter instance it is very (I think) objectionable, having a beaked end, and presenting throughout its course a surface at all times nearly, if not quite, equal to the calibre of the urethra, and necessarily in course resisted through the entire canal. Now, would not a spherical top to a catheter, of half the diameter of the sphere, be a far superior instrument, from its having only that globular termination, to which resistance would be offered, and never, from its formation, abutting upon sacculated points, the middle lobe of the prostate, or any normal narrowing of the passage.

I remember using, many years since, the instruments for examining strictures suggested by Mr. Bell, and with what facility they were passed, and simply from the spherical character of their ends. It appears to me to be a mode of improving a very important instrument, and I beg to call the attention of the profession to the suggestion I offer, assured that, although the art of catheterism is in the hands of scientific men, acquainted with every liability of the general structure of the urethral channel, comparatively easy, yet that even in their hands the modern and common catheter is not a perfect instrument, as it involves the whole passage; whilst the spherical-topped one that I propose, having but a limited surface for resistance, would glide much more easily into the bladder. I am, Sir, yours truly,

George Rogers.

Brighton, Feb. 13, 1842.

HUSBANDS AT ACCOUCHEMENTS.

To the Editor of The Lancet.

Sir,—As a non-professional reader, I presume that it will not be quite uninteresting to give you my views of a question recently discussed in your pages, namely, "The presence of husbands at accouchements." I believe there are few men but are annoyed, and there are many who consider themselves to be degraded and insulted, by the exclusion which the tyrant "custom" seems to sanction on these occasions. The moment is an anxious and depressing one, and few have the moral courage to brave the temporary odium which attaches to the disturbance of so delicate a question; but the question must arise, "Why am I to be so delicate as to absent myself at such a time, when so many others, even of the *modest* sex, whom necessity and curiosity bring to the room, claim to dispense with this feeling?" And it may be argued thus, "Does not my wife feel confidence enough in me to believe that any supposed indelicacy to which she is obliged to submit, would never lower the standard of my feelings with respect either to her person or her morals?" Which is most likely to affect a man's feelings; to exaggerate the proceedings of the lying-in chamber into something that is revolting even to the imagination; or, his presence and knowledge of what is really necessary to be done there, leaving nothing for the mind to dwell on afterwards? May these duties be performed by a man to a woman whom he has perhaps never before seen,—can they be witnessed by other women who have not the excuse of absolute necessity for their attendance, and yet a father and a husband is forbid by delicacy to be present at the birth of his own child? It would seem preposterous, but that a clue to the inconsistency is obtained in the fact that it is not the wife's feelings or decency that is consulted, but the objecting accoucheur, and the gossips who surround him. The idea of a woman's submitting, in the presence of persons of both sexes, to what she would not submit to before her husband, is to place a wife's confidence and affection in a very false view. Husbands may appear *voluntarily* to withdraw them-

selves, but there are few who like to be treated like children, loitering at a distance, and pretending that they feel the propriety of all that is dictated by those who usurp their proper place at a wife's side, to cheer her in the intervals of pain, and to watch with kind and anxious interest her progress. Appeals to notions of delicacy at such times are unworthy of a liberal profession. I have been present at two accouchements with my wife. Everything was both decorous and courteous, and I think I should be doing the accoucheur injustice to say that he would have felt more at ease if I had been absent. I am, Sir, your obedient servant,

F.

February 4, 1842.

ATTENDANCE AT ACCOUCHEMENTS.

To the Editor of THE LANCET.

SIR,—This is a vastly amusing subject, as are all discussions upon matters of opinion where no line is to be drawn, as in the case of what may be thought delicate, and what indelicate; for while some think (as I do) that there can be no impropriety in the presence of an anxious husband in the lying-in room (indeed, it is often a great comfort to the patient), and that the accoucheur need not care who witnesses his necessary duties,—others may consider it to be highly proper and necessary to put the legs of the piano into trowsers; and equally improper for a female to go into a room if the table have its flap down. Again, some may say that no lady possessing a spark of decorum should ever be *seen* to swing in a garden; because potatoes have eyes. Now, Sir, as before said, these are all completely matters of opinion; but the subject of *man-midwifery* which was commented on by "H. B." (in caricature, of course,) in last week's LANCET, is a much more grave affair; so much graver, indeed, that any ceremony of strict delicacy (which, by-the-by, is often a forced or hot-bed growth) may, and should be, a little put on one side for more weighty considerations.

I have heard related by a London lecturer on midwifery, that a nobleman of the last century, being strongly impressed with the impropriety of man-midwifery, got up an institution, which was patronised by royalty, to educate females in this branch of art, with the view of superseding the ordinary surgeon. After a few years, one female in particular, who had obtained the highest prizes in the school, and was considered highly accomplished in the art, was selected by the noble founder of the institution to superintend his lady's accouchement. The case happened to be one of face presentation, but was mistaken by the female accoucheur for a presentation of the breech; for under this impression she had so rudely introduced her finger into what she considered to be the anus, that when my lord's son and heir was born, the eye was found, pushed out of its socket, hanging upon the cheek; and thus ended the institution and his lordship's prejudice.

Females are generally, from their early habits and education, very unlikely to prove ingenious in any really mechanical operation, which midwifery is. The rough sports of the boy, his destructive habits with his playthings and furniture, contribute to a practical knowledge of mechanical resistance and the resolution of forces, which he would never acquire by nursing a doll, or by any gentle amusement; and during many generations this difference in habit has produced a very marked difference in the mental and effective qualifications of the two sexes, each being admirably fitted for its proper sphere of action.

It is a mistake to suppose that parturition is, even on the average, an undeviating process, as stated by "H. B." I have attended many hundreds of cases, and can safely assert that I never yet saw two cases exactly alike in detail, and very few where I could not demonstrate the happy utility and assistance of mechanical ingenuity.

"H. B." informs us that the man-midwife is an importation, and not a very ancient one. Truly, he was imported with the progress of civilisation and of science. Again, "H. B." affirms that his employment is rather a matter of custom than of science. Here I maintain that there is no surgical operation where a greater share of consummate mechanical skill and of judgment is more frequently demanded; although, perhaps, in a majority of cases nature is capable of completing the process; and where, it may be thought, a female would be a sufficiently capable witness, yet who can insure these cases? And is not the greater mechanical skill and judgment of the surgeon always, even in the most natural labours, of great assistance to the patient? I would not deny that many men are as deficient as women in mechanical ingenuity; nor would I undertake to say that such men do not very frequently obtain the largest share of midwifery practice; but this concerns the ladies. I remain, Sir, your obedient servant,

R. S.

Kennington Common, Feb. 6, 1842.

INCOMPETENCY OF FEMALE ACCOUCHEURS.

To the Editor of THE LANCET.

SIR,—It has given me pleasure to observe the kindly manner in which you have given space in your valuable Journal to the various opinions of medical men on the subject of husbands attending the bedside of their wives during the act of parturition; but as I observe that your Number for Feb. 5th con-

tains a letter from a non-medical correspondent ("H. B."), evidently based on "false conception," advocating the propriety of the act, and, at the same time, endeavouring to prove the impropriety of medical *men* interfering in cases of the kind, I must beg the favour of your giving me a corner, in order that I may reply to a couple of queries therein contained. Your correspondent writes, "But if it be indecent for a husband to be there, why a man at all?" And, again, "Might not a woman do the work when needed for her sister-woman?" To the first I would reply, because men possess more moral courage than women, and are consequently more capable of encountering the sudden and often alarming vicissitudes to which women in labour are subject, and are too often visited with,—changes that require the most prompt attendance and most determined coolness and resolution on the part of the accoucheur, and without which many an unfortunate woman would be launched, before her time, into eternity. "H. B." may talk, from his ignorance of the profession, of the "undeviating certainty and perfection with which nature carries out her designs;" but practical experience would convince him how frequently she is foiled in her good intentions. So protean are the symptoms and characters of the lying-in room, that I would say, before a person was qualified to undertake the duty, he should, besides an ordinary knowledge of midwifery, possess a perfect knowledge of anatomy, of diseases in general, and of the means of alleviating them, together with what few women possess, namely, nerve, and presence of mind, under the most trying circumstances; and unless your learned correspondent could impart by *education* the latter essentials, I would say that women would not be competent to "do the work when needed," and, consequently, not "fully equal to the task." As regards the attendance of husbands on such occasions, I should say that it was a matter of taste; but judging from the brute creation, who seem to abhor the idea, and from the opinions of all those whom I have met with, who seem to possess a particle of *refined* feeling, I should say that it was *contrary to nature*, and highly indelicate. I am, Sir, your most obedient servant,

A SUBSCRIBER.

Bath, Feb. 8, 1842.

MIDWIVES AND MIDWIFERY.

To the Editor of THE LANCET.

SIR,—The letters on the presence of the husband in the lying-in apartment that have recently appeared, produced last week a letter from a non-professional reader, questioning the utility of male assistance being desirable on these occasions.

Both as a private and professional individual I entirely disagree with your correspondent, "H. B." Indeed, I consider it a great injustice to the medical profession that the attendance of midwives is encouraged and countenanced in hospitals, dispensaries, and other public institutions, both by the committees, and even by many of the medical officers, believing as I do that the interests of humanity would be much more faithfully served were females excluded and entirely prohibited from this practice. Any man who advocates the attendance of pregnant women by females does so in total ignorance of the great and heavy responsibilities that sometimes, and that not rarely, devolve on the attendant in these cases, that demand the highest judgment to devise the best and most effectual means of insuring the safety of the mother. I am willing to allow, and we might naturally expect a like result, that in the majority of cases the efforts of nature alone will be sufficient to accomplish her purpose. Sudden and unforeseen emergencies will, however, frequently happen, that place the life of the patient in imminent peril, when I believe a well-educated and scientific medical man is the only person capable of superintending the difficulty. If such cases are proved extremely rare, still the preservation of one life is important. It may be granted that our knowledge has advanced in this department of science equally with other divisions of knowledge; but cannot this information be communicated to females to serve all practical purposes? I think not. Even granting that it could, would females be capable of rendering their knowledge available when most required? Would not the frightful nature of the case paralyse the judgment of the most masculine female mind? The eminent and learned Dr. Hunter, in his lectures, is reported to have said, "there are two things which I am frighted at in midwifery: one is a flooding, and the other convulsions." Again, men of science would never have devoted their minds to this pursuit, unless experience and study had proved to them its high importance. How do these men regard this practice? Why, as the most responsible that can be imposed on the medical man, and every one who is not himself ignorant of its dangers must look upon it in a similar light.

The present artificial state of society has rendered females more prone to the dangers of parturition, and hence a greater necessity for increased vigilance in attending them.

The public do not regard the scientific accoucheur with those feelings of respect always due to him; if it is supposed that no application, no previous study is required, a more wrong impression could not exist. The most learned and high-minded men have not thought it beneath them to devote their time and talent to its advancement; witness the

names of Drs. Hunter, Denman, Gooch, and a long list of gentlemen now living.

However the better education of females might lessen the evil, it is notorious that the attendance of midwives, uninformed as they now are, is in many respects positively injurious, and in numberless cases women would be much safer if intrusted entirely to nature. A midwife to one of the largest parishes in London, and in extensive private practice, lately told me in conversation that for the *first seven years of her practice she never had a case unattended with danger!* And why was this? From her own ignorance and unnecessary interference, it is morally impossible it should be otherwise. That self-interest is not the prevailing motive for my advocating the attendance of educated medical men may be easily learned. Let "H. B." or any other person see whether practitioners themselves prefer intrusting beloved relatives of their own to the hands of even well-informed midwives, or to the care of a clever professional brother.

Much more might be said and written, but I have already too greatly encroached on your valuable space. "H. B." may be sincere in his opinion, but I am convinced he would think differently had he received a medical education. In conclusion, he may rest assured his present wishes are less likely of being fulfilled than ever. The London College of Surgeons, with other medical institutions, acknowledge the necessity of its members being examined on this department of practice. I am, Sir, your obedient servant,

T. W. B. Kirkby.

Ebury-street, Pimlico,
Feb. 8, 1842.

*** This is obviously a subject upon which two very strong opinions exist. It is clear, from what has been written, that medical practitioners will not object to the expressed wish of wives or husbands for the presence of the latter in the puerperal chamber. It is also certain that few husbands will have sufficient strength of mind to avail themselves of the privilege, or to behave with becoming discretion and judgment when placed in that situation. With regard to the advocacy of midwives, our correspondent need not be concerned: the women of England are, happily for her sons, wholly deficient both in the moral and physical organisation necessary for performing the duties of that most responsible office. We envy not the feelings of the husband when the midwife, in a difficult position, requests the aid of the medical practitioner; but we deeply commiserate the despair of the poor sufferer, who draws from this event the natural inference of approaching destruction.

THE LANCET.

London, Saturday, February 26, 1842.

We propose to introduce to our readers, and to discuss, a most important series of reports on the sanatory state of Calcutta, the capital of our Indian empire. And what, it may be asked, have we to do with the health of the natives of India, or of our countrymen resident in that wide and distant part on the Ganges? We answer, Much. The health of the colonies can never be a matter of indifference to the mother country. Their advantages are always in proportion to their prosperity; and their prosperity depends, in no slight degree, on the inhabitants' vigour, industry, and happiness, of which health is the fundamental condition. Foreign settlements are of three kinds; and a country may have three different ultimate objects in their establishment: planting, self-maintaining, and, in the end, independent nations; retaining military possessions for the protection of commerce; holding nations in subjection for the sake of power, revenue, or indirect commercial advantages. New South Wales, Malta, and India are examples. Health is an important element in all. In the temperate latitudes the English race can be perpetuated, as the health of parents and offspring is unimpaired; in the tropical parts of Africa and America the mortality is so high, as to cut short the lives of the parents, and to preclude the hope of ever, in the present state of our knowledge, educating there a race of Englishmen. The timely sanatory regulation of the first class of settlements, which are colonies in the strictest sense, is of the utmost importance; for, by attention to the sites of towns, and to similar matters, a vast deal of future sickness, great loss of life, and a waste of capital, may be avoided, which might otherwise be ruinous, or at least very much retard the progress of the colony. It is fortunate for mankind that, in general, the best methods of cultivation are the most conducive to health; and that the pleasantest places to

the eye are the most salubrious for dwellings. But there is no constant relation between the two series of facts; and the narrow streets, the filth, the neglect of drainage, and the want of adequate means of ventilation in all the houses and towns erected by our ancestors, or building in the present day, prove that something more than the suggestions of common sense are required, not only to attain an average degree of salubrity, but to prevent the visitations of wide, life-destroying pestilences. The consequences of the violation of hygiological principles in colonies is not apparent until the towns attain some magnitude, and the poisons generated in them are concentrated; hence, that species of common sense which perceives only evils when they exist, is not enough. Science to foresee and prevent is indispensable. From all that we have heard, we fear, nevertheless, that science has had very little to do with the location of our colonial population in Canada, the Cape of Good Hope, Australasia, or New Zealand.

"It has been observed," says Dr. MARTIN in the report before us, "that of all the "European nations who have planted distant "settlements, the English have invariably "shown the least regard to the proper selec- "tion of localities for the sites of their colonial "cities; and this, I think, must in general "be ascribed to the commercial spirit taking "the lead; a good harbour and soundings, "or else the embouchures of great rivers, "were the first objects of desire; and it ge- "nerally happened that both led to the posi- "tions the most unfavourable to health." The "commercial spirit" was not corrected by the presiding reason—science; and medical advice was not sought, was rejected, or was sought from ill-informed men, patronised by the heads of the present medical corporations.

The importance of salubrity in military stations is too obvious to require comment, although it has been little regarded; and the neglect has more than once inflicted severe wounds on the national strength, honour, and interests.

India is a conquered empire rather than a colony. The number of British-born subjects in Hindostan was only 31,000 in 1805, according to the official returns, and has been recently estimated by Mr. M'CULLOCH at 40,000. In HAMILTON'S "Indian Gazetteer" (2nd edit.), the total population under the British Government is stated to be 83 millions; with its allies, 123 millions. The total gross revenues of India amounted to nearly twenty-two millions sterling annually (1820-9); and the nett revenues in 1834, 5, were nearly fourteen millions sterling.

England owes something to these millions of people from whom such an immense revenue is derived; they have sense, affections, and hopes; they were not made merely to be oppressed by civil governments, or shot down and conquered by aspirants to military glory; and it would be an ignoble thing in this country to vanquish, without conferring on India some of the blessings of science and civilisation. The least that we should do would be to devote a part of the resources of India to the improvement of the sanatory condition of its cities.

The health of the English part of the population, of the British troops, and, consequently, the firmness of our hold on India, must depend in a great degree on the sanatory state of the country, on the selection of stations, and on the condition of the dense populations in which epidemics are generated.

Finally, the epidemic cholera, which, it would appear, took its rise in the vicinity of Calcutta, must convince the people of this country that they are directly concerned in the health and well-being of the Indian population. The interests of all the nations of the human family have been bound together by the hand of GOD, and cannot be disunited by the wickedness of men. An injury inflicted on the remotest and most despised people is ultimately felt by the whole race; while a benefit, in the shape of a national amelioration, sheds its influence around like rays of light from an inexhaustible source.

On all these grounds we look upon the well-conducted sanatory inquiry commenced in Bengal, as one of the most important undertakings of the age in India, useful to science, to England; and creditable alike to Mr. MARTIN (with whom it originated), to the committee of inquiry, and to the government. At another time we shall notice some of the results in the reports.

ALTHOUGH we do not intend to say anything further relative to the Poor-law Commissioners until we have their plan of Medical Relief before us, and have an opportunity of giving it a calm and impartial consideration, it may not be amiss to remind the Medical Candidates and the Guardians, of some of their duties at the time that the election of officers for the ensuing year is about to be made.

The Guardians have a public duty to perform. On the appointment of medical officers, the health and many of the lives of their fellow-creatures depend. Let them reflect on the position in which they stand to the poor; and ask themselves to what practitioners they would like to see their own lives intrusted, if they were placed, by the accidents of birth or fortune, in the same state of dependence as their impoverished neighbours. For such practitioners it is their duty to vote, and not, assuredly, for those who set the lowest value on their services. As a general rule, the men of the greatest talent, and those most esteemed by the poor themselves, should be selected for medical officers. Guardians should be cautious in appointing friends or relatives of influential members of their own body: they should avoid the appearance of jobbing in the lives of their fellow-parishioners.

The censures of the Poor-law Commissioners are not always to be regarded, but where qualified judges (such, for instance, as Dr. KAY) have pronounced an officer ignorant or negligent, he should not be re-elected. In some unions it has been the custom for the respectable medical practitioners to take office by rotation; where the qualifications are pretty nearly equal this arrangement is a good one, and should be kept up; for it is quite fair to the medical profession, and to the different classes of paupers, who will, all in turn, have the practitioner they prefer.

Our advice to medical candidates is very short; it is this: Do not undertake duties which you cannot perform as efficiently for the poor as for your wealthiest patients. Do not pretend to attend paupers at a lower rate of remuneration than was recommended by the medical witnesses in the Parliamentary inquiry. If you do, and have little capital, you must cheat many patients of the time and remedies which their cases require; if you are a rich man, leave the field of competition open to your younger and less fortunate brethren.

OUR attention has been called to the ignorance, wilful or assumed, displayed by the *Assistant*-Commissioners HALL and PHELAN in their remarks, in the Dublin workhouse case, on M'CULLOCH's method of ascertaining the mortality of a fluctuating population. But we shall not be tempted to discuss this illustration of the workhouse system, and of the wisdom of its advocates, prematurely. We shall wait patiently until we see the new medical regulations of the Poor-law Commissioners.

CONSEQUENCES
OF THE
PREVAILING MODE OF FRAMING MEDICAL BILLS OF ACCOMPT.

To the Editor of THE LANCET.

SIR,—In any Bill to be brought before Parliament, I apprehend that, in order to work a beneficial change in the ranks of medical men, some provision must be made for the separation of the *trade* from the *profession* of physic, i. e., that the general practitioner may be remunerated for his attendance,—for the skill and knowledge that are requisite in the treatment of disease, and not for the medicines he furnishes. The latter system I believe to be the fertile source of all the evils which now afflict the profession in their relations with the public. The me-

dical practitioner has been in the habit of including the amount of his fee in the charge for the medicine sent to his patient, who is thus taught by the surgeon himself to view the *medicines only* as the object of the remuneration, looking merely to the number of draughts, pills, powders, &c., and not to the skill and attention of the medical attendant. Another effect of this system has been to lead the chemist and druggist to prescribe, he charging less for medicines than the general practitioner; and the public still seeing the medicine only as the thing to which value is attached, fancy they get it so much the cheaper, and, consequently, resort to the druggist for the supply. This has led the chemist and druggist also to charge (what is really) an exorbitant price for medicine dispensed by him, the real value being conferred on the medicine by the prescriber.

An instance or two will show what is meant. An ounce of Epsom salts may be purchased at the chemist's for a penny: a medical man may prescribe one-fourth of this every morning in half a pint of warm water, and the patient will get it for a penny, on which sum the chemist and druggist, it is to be presumed, gets a fair profit. Now, if the medical practitioner writes a prescription for *a mixture*, containing one ounce of salts dissolved in water, the chemist and druggist will put the salts into a bottle (value 2d.), and charge 1s. 8d. or 2s. 6d. *for the mixture*. What has he done to the draught to render it so much more costly? Nothing! He has merely *imitated* the general practitioner in charging for a mixture in the charge for which the latter would have included his fee, or a portion of it, the other portion to be charged on other medicines. What possible relation is there between these? Again: one grain of calomel (or any quantity up to thirty grains, or even more,) may be purchased for one penny. If a *powder* with one grain of calomel be *prescribed*, the patient will be charged 3d., perhaps 6d., for each powder. If a patient be told to take a wine-glassful of infusion of gentian, or chamomile, or such like, the chemist and druggist will charge him for the infusion, as such, and the bottle, a small sum, on which, too, he obtains a profit, as on a compound medicine; but if the very same is prescribed *as a mixture*, he will charge, perhaps, ten times as much, or more, he having conferred no further value on it whatever: and so on for every *form* of medicine, lotions, embrocations, &c. &c.

This state of things forms an impediment to the entire separation of dispensing from prescribing medicines, and must be overcome, for the public cannot afford to pay such prices to the chemist and druggist, in addition to the fee of the practitioner. Now the only remedy appears to be, the actual separation of the trade from the profession of physic. The general practitioner should be remunerated *directly* for his visits, attendance, skill, and knowledge, and not *indirectly*, or even at all, for medicines; and the chemists and druggists should charge for medicines merely as tradesmen, and as much as they would sell them for without their being prescribed in any particular forms, beyond a reasonable sum for the trouble occasioned by putting them in that particular form. The public would then understand what it was, in reality, that they paid for. The prescribing of chemists and druggists would cease, as they should never be allowed to charge more for medicines than they are worth as such. The public, too, would begin to understand that to *prescribe* a medicine, besides a knowledge of its nature, there is requisite a knowledge of the anatomy and physiology of the human frame, of its pathology, or state of disease, and of the means of restoring health, embracing a much wider range than the study of mere medicines; and that the chemist and druggist neither has, or is likely to acquire, by the handling and mixing of medicines, such requisite knowledge. This may be done by the profession at once, if they would promptly cease to charge for medicines; and if the chemist and druggist would confine himself to his legitimate occupation, each sacrificing a little. But in a legislative enactment they may be separated, and the choice given to the general practitioners, who now practise in both capacities, to enrol themselves under either. I am, Sir, your obedient servant,

AGONISTES.

February 21, 1842.

*** Referring to the first sentence of our correspondent's letter, we may observe that it has long been held in our courts of law to be legal for the "general practitioner" to claim remuneration for his *attendance* on patients. If it were true, therefore, that all the evils which afflict the profession were traceable to its habits of charging for medicines, the grievances of medical men which it has hitherto been usual to ascribe to the corruption and misgovernment of the corporations, and the crying wrongs of medical education, would vanish before a consentaneous change in the form of medical bills and accompts, which is voluntary on the part of the profession. We fully agree with our correspondent, that it is unsatisfactory and disreputable to derive remuneration from the supply of medicines. His idea that druggists in their present practices have merely become *imitators* of medical practitioners, is not less correct than ingenious. But as the law already encourages the latter to abandon the bad practice, nothing is left for the Legislature

to do on the subject. There is simply needed a *general agreement* to frame all medical accompts in one way. Statute *law* cannot descend—it would be wrong to invite it—to rule pages and describe entries in private day-books and ledgers.

THE HISTORY AND PRESENT CONDITION OF MISS A., LINCOLN ASYLUM.

To the Editor of THE LANCET.

SIR,—Your correspondent "PHILADELPHUS" accuses me of disingenuously withholding certain reports, which reports he has at the same time forwarded to your Journal for publication. The reports which he has forwarded (and those only) had already appeared in your Journal, in a letter from Dr. Cookson, in January, 1841 (Dr. Cookson and "PHILADELPHUS" being one person). Now, it is clear that he (Dr. Cookson) had withheld in 1841 those reports which I published in 1842; and hence, that if the *whole* of the reports are really necessary towards a fair explanation of any portion of them, Dr. Cookson, who had omitted to publish the whole, is himself the disingenuous party. "PHILADELPHUS" will not deny a knowledge of the previous appearance of the reports which he has republished in your Journal.

The question, however, is not whether violence has occurred under the non-restraint and non-seclusion system, but whether it has been more frequent than under the opposite system. It is true, that a nurse had her finger broken by a patient goaded by long-continued solitary confinement, after instrumental restraint had been discontinued. It is equally true, that after six weeks' unceasing instrumental restraint, of the most aggravated description, committed on the person of a female patient in this asylum, the poor wretch took advantage of a few minutes' relaxation from her sufferings to rid herself, by death, of any further continuance of them. It is true, that a male patient in the same asylum, habitually confined at night in a strait-waistcoat, was found in the morning strangled in that dangerous and oppressive instrument. No doubt the records of the restraint-houses in this kingdom could furnish numerous other instances more or less distressing.

I have never asserted or imagined that lunatic violence must not be expected in lunatic asylums under any system of management, but let the amount of it in this institution be compared under the two systems, and it will be found to have diminished to an extraordinary degree with all the patients so disposed, and with none more than with the victim Miss A., who was kept in solitary confinement by day, from May 20, 1840, to September 14, 1841, nearly five thousand hours.

The part taken by Dr. Cookson in this business the following reports will exhibit:—

"May 28, 1840. Mrs. C. was secluded yesterday, and is quieter to-day. If there were half a dozen cases like this and Miss A., we could not get on at all. I beg again to suggest to the board the necessity of *safe* rooms for seclusion of violent patients; if there were a contrivance to exclude the stimulus of light they would be all the better.

(Signed) "W. D. COOKSON."

"Aug. 25, 1840. Two females, D. and L., of L., are removed to-day. An hour will not be lost in making one of the vacant rooms a proper place for seclusion or confinement. I here beg to state that I disapprove of seclusion in excess as I do of restraint in excess—the error appears to me to be in the extremes and the abuse; but the event of this day, and of many others, show that in Miss A.'s case, as it is at present, if there be not restraint there must be seclusion; that is to say, if we are to consider the other patients; and if seclusion *must be* the apparatus, it ought to be as perfect as possible, and the first requisite is a comfortable room. The ottoman is now being fixed to the wall, and the fixed urinal is ordered.

"W. D. COOKSON."

A subsequent report from the same hand exhibits the consequences:—

"Aug. 27, 1840. I have come for the purpose of seeing Miss A. removed from her room—she refused stoutly to quit it. It requires cleaning, and by the exertion of four nurses she was brought out, but in her chemise alone. She refused to put on her clothes; and when an attempt was made to put a gown over her shoulders for decency's sake, she furiously assaulted the nurses (four of whom, viz., 1. The head-nurse, 2. Ringham, 3. Betts, 4. Betsy, were engaged with her), striking and kicking in all directions. Her chemise fell down about her heels, and she was got back into her room as quickly as possible. Mr. Smith received a dangerous kick from her after the struggle was over. Advantage was afterwards taken of her leaving her room for an instant; the door was locked, and she was shoved into the next cell, where she now remains. It would be madness to place her among the other patients in her present state. She cannot be dressed without a severe struggle, and one which I will not countenance. The only alternative that I can see is, that she must remain in *nakedness and seclusion*.

"W. D. COOKSON."

From this period Miss A. was kept secluded from all human association, excepting on some very rare occasions, until September 14, 1841, when the board insisted upon the experiment being made of a different management, which was accordingly attempted. A few days after this Mr. Smith, the present house-surgeon, announced to the board his conviction that seclusion could be safely dispensed with altogether. Miss A. and the other violent patients required for a time extraordinary attention and very careful watching, but from being amused, and allowed various indulgencies, gradually improved. Miss A. has now for several months mixed sociably with the other patients; has taken exercise beyond the walls, accompanied by a single attendant; has frequented the shops, and selected her own dresses; has visited all the public buildings; has been to a concert in the theatre, where she listened attentively to the performances; takes tea with the matron occasionally; and mixes cheerfully in the dance at all the balls held in the institution. And even Dr. Cookson now admits, in a late report, "that this patient is much improved in mind, and not like the same person." I remain, Sir, your very obedient and faithful servant,

ROBERT GARDINER HILL.

Lincoln, Feb. 19, 1842.

WESTMINSTER MEDICAL SOCIETY.

Saturday, Feb. 19, 1842.

Mr. H. J. JOHNSON, President.

DEEP-SEATED MAMMARY ABSCESS.—EFFECTS OF A HORSE-CHEMIST'S PILLS ON A PREGNANT WOMAN.—OPENING ABSCESSES BY SETONS.

THE PRESIDENT related the following case:—A woman some time since applied to him with what was considered to be a cancer, situated in the left mamma; she had been seen by one or two medical men who considered the tumour of consequence. The patient was emaciated, and altogether out of health, but she had not that peculiar appearance of the countenance which, if not essential to, assists in, the diagnosis of scirrhus; the menstrual discharges were regular, and she had been a mother within a year or two. On examining the breast it appeared enlarged, and a hard, lobulated resistant tumour could be distinctly felt very deeply-seated in the mamma: this tumour was slightly tender on pressure, and she had occasionally lancinating pains in it, similar to those which are present in scirrhus; there was no retraction of the nipple. On examining the tumour with more minuteness, he (Mr. Johnson) thought he could detect fluctuation; but this was very obscure. As there was a little pain, a few leeches were applied to the mamma, and some medicines were administered. At the end of two or three weeks the tumour had slightly increased in size, and was still somewhat tender. A further examination convinced him that there was deep-seated fluid in the breast, but of what nature or its exact site he could not, of course, determine. With this conviction he introduced the grooved needle deep into the mamma, but owing to the depth to which it was passed, the needle was wiped clean by the structure, and no satisfactory conclusion could be arrived at. He now plunged a lancet deep into the breast, and let out a quantity of pus. The patient was altogether free from chest affection; it was therefore evident that the abscess did not communicate with the thorax, but was probably seated in the cellular tissue beneath the mamma; it was found difficult to keep the abscess open; lint was placed in the wound, the edges of which were forcibly torn asunder daily; matter continued to flow for some time. A fistulous opening remained. Under the use of sarsaparilla, bark, and other tonics, the fistulous opening healed in a few months. The patient had remained well to the present time. This case he believed was by no means a common one; he had never met with one of a similar kind: he believed, however, Sir A. Cooper used to mention a case in which the mamma was amputated, and an abscess was discovered situated behind it.

A MEMBER recollected a case somewhat similar, which was related by Mr. Kingdon at the London Society last session. In that case, however, a succession of abscesses formed behind the mamma, and eventually destroyed the patient. This case was recorded in THE LANCET.* Mr. Toogood, of Bridgwater, had also in the same Journal referred to a peculiar kind of deep-seated abscess of the mamma, two or three examples of which he had witnessed in the course of his practice.† Probably Mr. Johnson's case might have been the commencement of this description of formidable disease, but happily arrested at its outset by the means resorted to.

Mr. CHOWNE related a case of a woman in the eighth month of pregnancy in whom labour was brought on by taking a powerful purgative pill, obtained from the shop of a "horse-medicine-compounding-chemist." The labour was attended by hæmorrhage; it became necessary to rupture the membranes, and subsequently to deliver by the forceps. Much hæmorrhage followed delivery, but the woman eventually did well.

Mr. MULLER also detailed a case in which a woman in the eighth month of pregnancy was prematurely delivered of a dead child, in consequence of her having taken a strong purgative dose a few days before.

* See p. 896, vol. i., 1840-41.

† Vol. ii., 1840-41, p. 157.

Mr. Johnson drew the attention of the society to the opening of mammary and other glandular abscesses by the formation of a seton. The advantages of the plan were the facilities which it afforded for keeping up a discharge as long as was necessary, and the prevention of a new formation of matter, or the necessity of making very extensive and painful incisions. The plan to be pursued was to pass the eye-probe through an incision made in the most depending part of the abscess to another part of its confines, and cutting down upon the point of that probe, and bringing the tape or thread through the opening. In mammary abscess and bubo he had frequently employed this plan, which he considered possessed of many advantages.

At the meeting to-night (Saturday) Mr. Downing will read a paper describing some points of the practice of medicine in China.

MEDICAL SOCIETY OF LONDON.

Monday, Feb. 14, 1842.

Dr. Clutterbuck, President.

RHEUMATISM.—BRAIN AFFECTION.—COLCHICUM AND OTHER REMEDIES IN GOUT AND RHEUMATISM.

Dr. Risdon Bennett drew the attention of the society to a case illustrating a modification of disease which, he thought, was by no means common. The patient was a young man, to whom he was called late on the preceding night. On the previous Tuesday this patient had been attacked with rheumatism of the chest and upper extremity: the disease was attended with considerable pain, the pulse was small and contracted, the urine thick; the countenance anxious, and indicative of the person being out of health. He was bled freely in the erect position; the blood was buffed and cupped; he had aperient medicine administered to him, followed by occasional doses of calomel and morphia, which were not, however, given regularly or persistently. On the second day the pain had left the upper extremities, and attacked the muscles of the thigh; it then left there, and seized upon the ankle-joint, and thus, in the course of every few hours, the pain shifted its position to various parts of the body; there was no redness, swelling, or inflammation of the joints. He was called in the preceding evening in consequence of the patient having become suddenly worse: he found him labouring under slight delirium; his pulse was 140, and of the hæmorrhagic character; the skin was moist; the tongue coated, but white and moist; the countenance anxious, and the local pain was then confined to the left malleolus. This was found on examination to be swollen and puffy, some leeches having been applied to it, and there was much pain on motion. The heart was free from disease; there was, however, a slight blowing sound at its systole; there was no evidence of any kind of chest or abdominal disease; the delirium was not like that which is usually present in cases where there is a metastasis of rheumatism to the brain, but seemed to be more the result of the general febrile condition of the patient. He thought the plan to be pursued was the administration of the calomel and opium more frequently; and in addition to this, he ordered a dose of extract of colocynth to be given directly, and that the patient should drink freely of barley-water, in which some nitre had been dissolved, and take in this draught five minims of tincture of digitalis occasionally to modify the heart's action. To-day, on visiting him, he found him worse; the skin was still moist, although there was a tendency to dryness over some parts of it; the tongue was brown and dry; the lips dry; there was sordes on the gums, and the delirium had increased. The rheumatic affection was now confined to the elbows, and with a view of localising the disease in this situation, a sinapism and warmth were applied to the part. Calomel and opium were given every two hours, and more support was administered; the pulse ranged from 150 to 160. He thought the case one of extreme danger, but did not consider that the head symptoms were dependent upon metastasis of the rheumatism. He should be glad if the society could offer an opinion as to the best mode of proceeding in such a case.

Dr. Clutterbuck thought the case was one of metastasis, and was peculiar only from the celerity with which the seat of the affection in the limbs was changed; he had little doubt that the brain was inflamed. He thought the use of narcotics in acute rheumatism was, at the least, equivocal practice, and liable to produce mischief in the brain. He had not seen much good result either from colchicum or mercury.

Mr. Hancock considered that the bleeding had been injurious; he knew the case, and was aware that a few hours after the venesection the pulse became more frequent, and the patient got worse. He had been for some months out of health.

Mr. Linnecar thought that acute rheumatism would run its course in spite of treatment. General bleeding he had never found of much use in this disease, although he had employed topical blood-letting with advantage. The plan he pursued with this remedy was to follow the disease about, and take blood from the parts as they became affected. He related the case of a gentleman much out of health who became the subject of rheumatism, which affected various joints; there was but little fever; the pulse was 100. The rheumatic symptoms gradually subsided, and the brain became affected; the pulse

small and quick, and comatose symptoms set in. Under the use of stimulants and tonics, with sinapisms to the feet, and a blister between the shoulders, he recovered; but his brain remained in a weak condition for some months. He believed that in this case the brain was not inflamed, but that the symptoms were dependent on exhaustion of the system from the disease.

Mr. Proctor believed that the question of bleeding had been decided twenty-five years ago. It was found from experience that bleeding might afford temporary relief, but that it would never cure the disease. He had never seen a fatal case of acute rheumatism unless some vital organ had become implicated. He thought in Dr. Bennett's case the brain symptoms were dependent upon exhaustion, and that the treatment by opium was the most proper.

Dr. Williams inquired whether there was any reason to suspect that the pains in the joints were of a nervous character, and that the affection of the brain was very similar.

Dr. Bennett replied, that the affection in the head and joints was not similar, because no relief was afforded to the former, when the latter became aggravated.

Dr. Clutterbuck stated, that at the time Cullen in the north was treating rheumatism by blood-letting, Fordyce in St. Thomas's Hospital was giving bark for the same purpose; they both claimed an equal amount of success. Probably in these cases the middle course was most beneficial. In his own opinion, blood-letting, employed early and with freedom, would often cure rheumatism; the longer it was delayed the less efficacious it became. Generally speaking, however, if the disease were not severe, it would do well with rest, salines, and purgatives.

Mr. Middleton, in some cases similar to that detailed by Dr. Bennett, had found the employment of calomel and opium alternately with five-grain doses of carbonate of ammonia of much benefit.

Mr. Roberts thought that in Dr. Bennett's case the delirium resulted from a want of sleep, and the irritation produced by the disease. He thought moderate bleeding in rheumatism of service, but condemned the use of colchicum as likely to be injurious, both by producing inflammation of the mucous membrane of the bowels and affecting the head. He thought in such cases as that related by Dr. Bennett, the employment of small doses of ipecacuanha wine and tincture of hyoscyamus the best mode of treatment.

Monday, February 21, 1842.

Dr. Bennett stated, that the case he had related at the last meeting had terminated the following day: the patient became gradually weaker, but the rheumatic inflammation remained in the elbow-joints to the last. Unfortunately, no post-mortem examination was obtained. Since the last meeting he had seen a case illustrative of Mr. Robarts's opinion respecting the injurious effects of colchicum. In a case of subacute rheumatism in which the medicine in question was given, great irritation of the bowels ensued, and the rheumatic affection was aggravated. On leaving off the medicine, both the rheumatism and intestinal irritation ceased.

Mr. Proctor thought we did wrong in discarding medicines, because they did not always sustain the high character which had been given them: extremes in medical treatment were usually bad; it was the judicious medium which was most advantageous.

A Member stated, that he believed colchicum did not do any good in acute rheumatism until it acted freely upon the bowels.

Mr. Clifton had never found the full benefit of colchicum in acute rheumatism until it had acted freely on the mucous membrane of the intestines; he had never found mischief to ensue from its employment: the colchicum stools were of a bright yellow colour, indicating the presence of a great quantity of bile. Having observed how much the colchicum appeared to act upon the liver, he had in some mild cases of jaundice employed this medicine alone, and he thought with benefit: in gout, also, he did not expect much benefit from colchicum until it produced purgation.

Dr. Bennett believed that when colchicum merely purged freely, it might be of service in acute rheumatism. When, however, it produced tenesmus and small watery evacuations, it was injurious, and aggravated all the symptoms. The results of the use of this medicine in rheumatism were so various that he could hardly offer an opinion upon its merits. In gout, there could be no question, however, that it was of great value.

Mr. Dendy believed that both in gout and rheumatism colchicum acted beneficially by its purgative effects, and that any other strong purgative would be equally serviceable.

Dr. Theophilus Thompson thought that colchicum had a specific action in gout, quite independent of its purging qualities: he thought it acted beneficially by causing an increase of lithic acid in the urine. In rheumatism he had not much experience of its effects.

Mr. Roberts was still of the same opinion respecting the use of colchicum in acute rheumatism; in gout it seemed to have a specific influence.

Mr. Hutchinson mentioned that a new preparation of colchicum, consisting of a tincture of the flowers, had been found by Mr. White of much benefit in gout and rheumatism; he (Mr. Hutchinson) had found colchicum frequently of service in rheumatism without its producing purging. In cases

of slight rheumatic pains in the limbs, a dose of the colchicum wine combined with a diaphoretic, and taken at bedtime, was of great benefit.

Mr. Harrison had found colchicum to have a marked influence on the pulse by lowering its action; in this respect colchicum was a powerful sedative. Colchicum appeared to him to have three distinct effects, the production of either of which lowered the action of the pulse, and gave evidence that the colchicum had taken effect; these were, purging, vomiting, and diaphoresis: when either of these took place, the medicine should be suspended. He related a case in which death resulted from moderate doses of colchicum, which were given without watching the effects. The patient sunk from collapse.

Dr. Bennett remarked, that Sir H. Halford had stated that colchicum often was of marvellous benefit in gout, without producing any evacuation whatever; that, in fact, it acted as a specific.

Dr. Alison treated rheumatism essentially as an inflammatory disease; blood-letting, calomel, opium, and colchicum, were the chief means of cure.

UNIVERSITY COLLEGE MEDICAL SOCIETY.

February 11, 1842.

Mr. Marshall, President.

LITHOTRITY.

Mr. Balmain read a paper on the Comparative Value of the Operations of Lithotomy and Lithotrity in cases of Stone in the Bladder. After a brief sketch of the history of lithotrity as practised among the Arabians and Egyptians, and noticing the imperfections of the art in that age of comparative ignorance and empiricism, the author proceeded to trace its progress down to the present time, describing and commenting on the various instruments that had been invented by the ingenuity of different operators. He alluded also to the other methods of cure, by excision and by solution, either effected by medicines acting on the system in general, or by chemical agents directly injected into the bladder. He then entered into a discussion of the relative success that had attended the operations of lithotrity, by Elderton, Amussat, Jacobson, Heurteloup, and Civiale; to the latter of whom he considered the honour to belong of having brought the operation to such a state of perfection, as to make it one of the best and safest operations in surgery. The author proceeded to a comparison of the operations of lithotrity and lithotomy. To the latter the objections were, the position of the patient—the danger arising from the size and nature of the wound—the risk of hæmorrhage and inflammation of the bladder—the great fatality of the operation, not less than one in six patients dying from it; and, lastly, the length and tediousness of the cure. On the contrary, lithotrity, after due practice on the dead body, was by no means dangerous, nor particularly difficult. That, according to Heurteloup, only one case in thirty-eight failed; and that from what the author had himself seen, not more than one in ten cases failed: and that the recurrence of stone after the operation of lithotrity was by no means so frequent as supposed, nor much more so than after lithotomy.

Mr. Norman regretted not having had more experience of the merits of lithotrity. He did not consider Mr. B.'s objection to the position of the patient of any importance; thought the operation of lithotrity had been too much puffed by its advocates; contended that lithotomy was in the present day a very successful operation; and that deposit of calculous matter is apt to recur after lithotrity. A case had been related to him by a friend, in which the patient, after sixteen operations, still laboured under stone, and probably will yet have to submit to lithotomy. Still he had no doubt that lithotrity might have its advantages; its greatest, however, he thought to depend on the fear which people naturally have of the knife, they would be willing to submit to lithotrity before suffering much from the stone; but to lithotomy not until later, when, perhaps, organic disease had been induced, and the danger of the operation increased.

Dr. Quain believed that both operations had their special advantages; but the author being so great an advocate for lithotrity, was desirous of hearing all objections, in order to refute them, he would state a few of them. They were a narrow or strictured urethra, an irritable or sacculated bladder, enlarged prostate, a large and hard calculus: all these were difficulties very great to the lithotritist, but not so to the lithotomist; and in addition to this, he would mention the injuries produced in the urethra by the instruments, and the sharp pieces of the stone during extraction.

Dr. Hare thought the advantage of lithotrity over lithotomy would depend upon the nature of the calculus, whether soft or hard, and its size: it would be, therefore, of great importance to observe the diathesis of the patient, and to analyse the urine.

A Member then stated some facts relative to the operation of lithotrity at a country hospital at which he had studied, Mr. Costello was the operator, and many submitted to the operation with complete success: in some it was unsuccessful, and lithotomy was afterwards performed—in a few death followed; but on the whole, he would regard these cases as favourable to lithotrity.

Dr. Mac Gregor considered that the only method of arriving at the truth would be by a

comparison of facts by the "numerical method:" that the best reasoning could avail little, while recorded facts could not be refuted. From his own observation of cases in the Dublin hospitals, he inclined to prefer lithotomy.

Mr. STOCKS thought the great cause of opposition to lithotrity in this country depended on a dislike and foolish prejudice to things new: people did not like to be turned out of their established tracks, and therefore preferred the old to the new, without examining their relative merits.

Mr. BALMAIN considered the case mentioned by Mr. Norman as having being subjected to the operation of lithotrity sixteen times as distinctly in favour of that operation, and did not think any precautions that could be taken would render lithotomy anything but a very serious operation. He thought a sacculated bladder equally obnoxious to the operations of lithotomy and lithotrity; thought the cause of the return of calculi after lithotrity, if more frequent than after lithotomy, depended not in there being a greater liability to recurrence, but on the fact of a larger number of patients recovering from the former operation than from the latter. He had seen lithotrity successfully performed in children whose urethra must be narrow, and in adults suffering from stricture: this latter affection being first treated in the ordinary way; and as to irritable bladder being an objection, he had seen the irritability of the bladder diminish on each application of the lithotrite. In one case of mulberry calculus, less pain was experienced than is usual from softer calculi.

The PRESIDENT stated that, according to a calculation made by Dr. Prout, the number of fatal cases from lithotomy was between one in seven and one in eight. He also stated that less pain might seem to be produced by the mulberry calculus than by the softer phosphatic and mixed calculi, because the latter kinds were deposited only when the bladder was already irritable and much diseased.

LETTER FOR THE

ATTENTION OF THE GOVERNORS

OF THE

WESTMINSTER HOSPITAL.

To the Editor of THE LANCET.

SIR,—As a student of the Westminster Hospital, and a reader of your valuable Journal, I with confidence request the insertion of the following unvarnished statement:—

In the first place, we have three physicians, three surgeons, and one assistant-surgeon. The names of these gentlemen are exhibited in large letters in the hall of the hospital as attending on certain days, and at certain hours. Nay, more; so minute have been their good intentions, that one gentleman was announced as intended to arrive at a quarter before the hour, and another at half-past. Hereupon, the "fresh and green" pupil proceeds to the hospital: is pleased with the building, the site, the ventilation, and the cleanliness of its wards; is dazzled by seeing the names of some "eminent" surgeons, and observes a proclamation that clinical lectures will be regularly given, and that a library is open for the use of the students. So he "enters."

What follows? Day after day, week after week, aye, month after month, he is at his post, without having once ever *seen* the *senior* surgeon. He has watched the second in rank, passing through the wards at a rapid rate, generally half an hour, often several hours after the time specified, and more frequently not at all; while the whole duties of this large and important hospital devolve on the junior surgeon and the assistant-surgeon, both of whom, particularly the former, are as remarkable for punctuality and attention, as the others are for the almost total want of it. The pupil asks, and asks in vain, for clinical investigation and lectures, or even an explanatory remark on some cases of importance; and he is told that there is no case-book, or he is amused for a few minutes by an *apology* for a clinical lecture from one who *could* if he *would* instruct. He sees a case ready for operation, and the patient leaves the hospital in disgust at the cruel delay to which he is subjected, for days, perhaps for weeks. And why? Because, forsooth, the principal surgeons choose to absent themselves, and no consideration can take place.

This is an undeniable fact, which has characterised several capital operations, as they would have been. Again, a patient dies. The pupil who has watched him, day by day, is anxious to be present at the post-mortem examination. But he finds that such things are unheeded.

Another most crying evil, is the non-recognition of dressers as responsible persons; and the consequence is, that any beardless boy, not three weeks in the profession, is appointed, becomes a mechanical tool in the hands of the house-surgeon, unfit to collect valuable clinical experience, neglecting his lectures, and seeming to learn to read before he has mastered his letters.

In these remarks I have not alluded to the physicians, as two of them are quite absolved from the preceding strictures, being punctual in attendance, and also at clinical lectures and pathological examinations.

The next point of importance, is the school now attached to the hospital, a building also admirably fitted for combining all the advantages that the pupil can desire; and in what state is it? It is supplied with an efficient body of lecturers, and anatomy is taught

by a man not less eminent for his anatomical attainments than for his zeal in tuition. But as a drawback to this, we find the dissecting-room in a state of continual irregularity, the bodies not being injected until several days after admission, and then most imperfectly; the rooms in a state of extreme filth, and the demonstrator, instead of proceeding from table to table, assisting and examining the pupil, from morning to night sitting in the porter's kitchen inhaling the fumes of tobacco from a clay pipe, and leaving the rooms entirely neglected.

It is to causes like these that may be attributed the gradual decline of this once celebrated hospital, and to arrest this state of things I have chosen the pages of your Journal as the medium by which a series of undeniable evils may reach the ears and touch the consciences of influential governors. Feeling no pique, either towards the hospital or any of its officers, but having its permanent interests most deeply at heart. I remain, Sir, your obedient servant,

VERITAS.

Westminster Hospital,
Feb. 7, 1842.

*** After the foregoing note was in type we received the following statement from the same correspondent:—"The demonstrator to whom I alluded has resigned since I wrote, and a most excellent demonstrator appointed in his place, who gives great satisfaction to the pupils and every one connected with the school."

LETTER FROM A SURGEON IN PRACTICE BEFORE AUGUST, 1815.

To the Editor of THE LANCET.

SIR,—I am one of those practitioners of the olden time who have not the privilege of gracing their names with the imposing appendages, M.R.C.S. *et* L.A.C. Now, as I am somewhat sensitive as to my station in society, as well as amongst my professional brethren, I beg to inquire of you whether, after the publication of the projected college list, I am to consider myself to be excluded from professional qualification, and exposed to the galling insinuation that I am a mere pretender in the honourable ranks of medicine. It so happens that I served an apprenticeship of five years with a gentleman in one of the midland counties, of deservedly high reputation, and even a more brilliant reputation had been, for a long period, upheld by his father, whom he succeeded. After that period I attended, during the winter of 1808 and 1809, the practice of St. Thomas's and Guy's Hospitals, and was a pupil in the different classes of Messrs. Cline and Cooper, and Drs. Babington, Curry, Marcet, Haighton, &c. &c. Subsequently, I was assistant for nearly two years with a gentleman of most extensive general practice, where I had every opportunity of seeing disease in its various shapes. At that time, not being aware that it would be important for those who were destined to engage in country practice to possess the college diploma, I gave the matter no consideration. Shortly afterwards I had the chance of fixing myself in the place where I have now resided during nearly thirty years, happily gratified by possessing the confidence of a numerous class of patients, both of rank and of the greatest respectability, and where I had hoped to end my days without a stain on my name. But I am now to be branded as an empiric, as an unqualified practitioner? I will sooner submit to "hew wood and draw water" than endure the sneers and taunts of my new-fledged opponents. I know that I have little to dread, for I am happy in the belief that my character is well known to those who are capable of judging it, and who are not likely, as the wind blows, to change their opinions, or withdraw their confidence; but still, I feel in a peculiar position, and shall be thankful for the sentiments of one who has, with so much zeal, fidelity, and talent, advocated the interests of the medical community. I am, Sir, your devoted servant,

SENTIENS.

February 16, 1842.

*** The writer may quiet the whole of his apprehensions. At the time that he was educated, the examinations at the College of Surgeons formed a complete farce. He is in all respects a legally-qualified medical practitioner, and no person who is not jealous of his reputation will insinuate anything to the contrary.

TREATMENT OF ILL-ACTING BRAINS.

To the Editor of THE LANCET.

SIR,—Perusing in your last Number a paper, entitled "Phrenology in its Application to the Treatment of Criminals," I find it stated by the author, that "*if* it be proper that in disorders arising from an affection or malformation of the heart, or any other organ, our sole effort should be directed to cure the unfortunate patient; it cannot be right that in disorders arising from an affection or malformation of the brain, our chief object should be to visit him with punishment." In this proposition I fully concur. But a little farther on I was startled at the following paragraph:—"The present unfortunate and almost universal ignorance which prevails of the fact, that the dispositions of men are within the power of remedial treatment directed to the brain is much to be deplored." I certainly, for one, have hitherto been com-

pletely ignorant of this fact; and I think that the benevolent author of the paper would confer a favour, not only on myself, but on the public at large, by pointing out *what description of remedial treatment, directed to the brain*, will produce the desired alteration in the dispositions of men; whether, for instance, he employs bleeding, general or local, in such common use for affections of the brain; or blisters, purgatives, emetics, or anodynes; or does he give the usual remedies for chronic affections—mercury, or other alteratives? The statements in his paper must certainly, I think, be considered to be incomplete, unless he also gives us the information I have requested. I am, Sir, your obedient servant,

O. P.

February 17, 1842.

*** Our correspondent must seek for moral remedies in the science of the mind, phrenology, and not in medicine. It is to the former that Mr. Sampson, who is not a medical man, refers.

PROCEEDINGS OF DRUGGISTS.

To the Editor of THE LANCET.

SIR,—Amongst your very excellent remarks on the recent movement of the chemists and druggists, I think you have omitted to notice one grand feature of their plan announced by them in unequivocal terms, namely, that they will strive to the utmost to obtain a charter which shall give them the exclusive right to prepare medicines, and which shall not prohibit them from prescribing behind the counter. This is an open declaration of war against the general practitioner, who, from the earliest period of his history, has had the right to prepare medicines, and who now, under the Act of 1815, is legally constituted *an apothecary*. Since these tradesmen have thus such a hostile spirit towards the apothecary, they have no right to expect a continuance of his support. To the apothecary they owe their bread. A few of them, by the aid of some M.D.'s, have stepped into the place of the apothecary as compounders of medicines, in large towns, and are, perhaps, independent of the apothecary; but the general practitioners form nine-tenths at least of the prescribers of medicine, and if they were either to form drug companies amongst themselves, or to procure their drugs from Apothecaries' Hall, the druggists, as a body, would speedily feel the consequence. Let the latter reflect upon the position they have chosen, and no longer be beguiled by a few metropolitan physicians out of their proper orbits. I am, Sir, your obedient servant,

AN OBSERVER.

London, Feb. 4, 1842.

MISTAKE IN DISPENSING.

To the Editor of THE LANCET.

SIR,—In the event of your not having seen a report of the inquest held last week in Bath on the body of the unfortunate Miss Rathbone, I forward to you the *Bath Chronicle* of the 3rd instant. It has lately been much the practice in this city for the physician to attend families at a certain sum per annum, the prescriptions being invariably sent to the druggist, to the detriment of the general practitioner,—endangering also the lives of the public. In the present instance it appears that, by *Dr. Watson's desire*, the chemist actually watched by the bedside of the patient during the whole night. A few words from you on this subject would prove satisfactory to a

CONSTANT READER.

Near Chippenham, Feb. 8, 1842.

A DRUGGIST'S RETORT.

To the Editor of THE LANCET.

SIR,—Being a regular reader of THE LANCET, and generally finding some spiteful remarks respecting the doings* of chemists and druggists, I am induced to hand you the inclosed piece of humbug, *the author being an M.D. and a surgeon*. Perhaps I must not expect notice to be taken of it on your part. Your obedient servant,

A DRUGGIST. (?)

February 22, 1842.

"Dr. Maclean, surgeon, &c., continues to give prescriptions and advice, gratis, at his house, 29, Upper Montagu-street, Montagu-square, every Monday, Wednesday, Friday, and Saturday evenings, at any time after eight o'clock; and, *if preferred, the prescriptions will be dispensed by a qualified assistant*. Dr. M., as usual, continues to see patients gratuitously, during his morning hour, from ten till eleven.

"Midwifery fee, one guinea.

"29, Upper Montagu-street, Montagu-square, four doors from Crawford-street."

LACERATION OF THE VAGINA AND CERVIX UTERI CURED.

MRS. C., ætat. 30, had uterine hæmorrhage at the seventh month, but at the eighth month it recurred to an alarming extent. The placenta was attached to the os uteri. At nine, a.m., delivery was effected without difficulty, but there was considerable hæmorrhage,

* At the Central Criminal Court they might class some of these "doings"—in which, however, no respectable chemists are ever found to be engaged—under the name of "manslaughter."—ED. L.

which continued after the expulsion of the placenta, and to such a degree as to make it advisable to introduce the hand for the purpose of checking it. Mr. Toogood then discovered a very extensive laceration of the posterior part of the vagina, which extended to the cervix uteri. The uterus was well contracted. For two hours the patient remained in an alarming state, the hæmorrhage continuing, with constant restlessness, fainting, and exhaustion. At twelve she appeared to be rapidly sinking, when a violent fit of vomiting came on, which seemed to relieve her, and she slept for half an hour; but during that time it was often doubtful if she were still alive. She was quite cold over the whole surface, and this state continued for three hours. Cordials and opium were administered unsparingly, and she gradually grew warmer, and now complained of great pain in the belly. She suffered much from exhaustion, but had some sleep during the night.

Second day. Her countenance was rather improved; the pulse perceptible, but very small. Occasional sickness, and slight hæmorrhage. Complained of excessive exhaustion, but not of noise in the ears and loss of sight, and never quite fainted. Cordials and opium were given, and perfect quiet enjoined. In the evening reaction commenced; the pulse became full, but easily compressed; the pain in the belly was increased, with feeling of great sinking and weakness.

Third day. The night was passed without sleep, and the pain in the belly much increased, with restlessness; thirst; full, frequent, weak pulse; sinking, and sickness. The belly was fomented, the catheter passed, and an injection of warm water given. Cordials and nutritious food and quietude prescribed. She slept at intervals in the day.

Fourth day. She had no sleep in the night Mr. T. found her restless, hot, flushed in the face, with a pulse of 140; complaining of extreme weakness, with nausea and vomiting; the belly tense, countenance exceedingly anxious, very talkative and desponding. The catheter was passed, a warm-water injection thrown up, and an opiate given.

Fifth day. Patient better in every respect. She has slept a great deal; the pulse less frequent; the skin moist; the tongue, which had been dry and brown, was now moist, but the edges were aphthous. She had made water freely, and the bowels had been relieved. She was much more tranquil, and took nourishment frequently. She continued to improve for a month, and then only complained of weakness and a slight purulent discharge. "I (Mr. T.) passed my finger gently into the vagina, and found that *although the rent was still large*, it was filling up. At the expiration of six weeks there was not the slightest discharge of any kind, and a long, firm cicatrix could be plainly felt. The patient got quite well."

The second case related by Mr. Toogood had no features materially different from the one just quoted. Large doses of opiates were found efficient.—*Prov. Journ.*

STRICTURE OF THE VAGINA.

A WOMAN, ætat. 40, who had borne children, thought herself pregnant, about six months after a delivery. The catamenia had ceased, but she had not increased in size. About this time she had some discharge, and suspected she was going to miscarry. As dark-coloured blood passed, and the pains became severe, she called in advice. There was a circular contraction of the vagina, so complete as almost entirely to obliterate the canal, leaving an orifice scarcely large enough to admit the point of a probe, through which a dark-coloured, offensive fluid passed. The opening was gradually dilated, which allowed the escape of a large quantity of putrid fluid, with immediate relief of all the symptoms. The stricture was dilated for seventeen days, and apparently removed.

Two months afterwards it had again contracted. Mr. Toogood having succeeded in dilating the urethra with a sponge tent, in two cases in which a female catheter had accidentally slipped into the bladder, tried the same plan in this woman's vagina, with temporary success only. Ultimately the stricture was divided in several places, and a very large dilator made of cork and covered with caoutchouc introduced; but so great was the disposition of the parts to contract, even after the free incisions had healed, that it was necessary to wear the instrument for several months before the cure was complete. She has been well for four years.—*Prov. Journ.*

PARACENTESIS THORACIS.—Our hospital has lately been furnished with two interesting cases of empyema: one of them, perhaps, ought more correctly to be termed abscess of the liver, for such it has been considered by Mr. Luke; but by the physician, Dr. Gordon, under whose care the patient has been for some time, it is considered to be a genuine case of empyema: for several reasons I incline to the former opinion. Dr. Gordon appears likely (?) to rival the late Dr. Davies in success in cases of this kind; *idem*, of two other gentlemen: one of them a surgeon of this hospital; the latter gentleman having cured by the operation of paracentesis not fewer than seven cases of empyema out of nine! The information I could afford on this head is of a very different character. As I have not quite forgotten my Latin, let me make an appropriate quotation—"Credat Judeus," &c. The other case of empyema which remains to be mentioned is singularly

interesting, in consequence of the operation of paracentesis by Mr. Hamilton having terminated fatally, owing to an intercostal artery having been accidentally wounded, and all attempts to restrain the hæmorrhage proving abortive, a good deal has in this instance been said of an unusual distribution of the vessel. May it not be ascribed to an overweening confidence in the supposed great security afforded by the groove in the inferior border of the rib destined for the lodgment of the intercostal vessels? On introducing the trocar between the ribs, the sharp edge ought on no account to be presented upwards!—A Pupil of the London Hospital.—Jan. 15, 1842.

ROYAL COLLEGE OF SURGEONS IN LONDON.

List of gentlemen admitted members on Friday, February 18, 1842:—Charles Linton Alexander; Robert Newton Hayward; John Denny; Edmund Rice; Christopher Barker Smith; George Thompson Cooper; Lawrence White; George Robinson; Rowland Agar; Thomas Inman; Henry Bower Bunnett.

Animal Instinct.—Many indications reference to approaching changes in the weather may be obtained by observing the actions of animals. The following extract from a recent number of Mr. Yarrell's "History of British Birds," vol. iii. p. 117, now in progress, will afford an apt illustration of this:—"Lord Braybrooke gave me the following account of a female swan, on the small stream at Bishop's Stortford. This swan was eighteen or nineteen years old, had brought up many broods, and was highly valued by the neighbours. She exhibited, some eight or nine years past, one of the most remarkable instances of the powers of instinct that was ever recorded. She was sitting on four or five eggs, and was observed to be very busy in collecting weeds, grasses, &c., to raise her nest; a farming man was ordered to take down half a load of haulm straw, with which she most industriously raised her nest and the eggs two feet and a half: that very night there came down a tremendous fall of rain, which flooded all the malt-shops, and did great damage. *Man* made no preparation; the *bird* did. Instinct prevailed over reason; her eggs were above, and only just above the water." When gnats collect themselves before the setting sun, and form a sort of vortex in the shape of a column, it announces fine weather. If they play up and down in the open air near sunset, they presage heat; if in the shade, mild and warm showers; but if they sting those passing them, cold weather and much rain may be expected. Spiders generally alter their webs once in twenty-four hours; and a rule has been deduced from this by an attentive observer of these natural prognostics, whereby to foretell the coming change. If they thus alter their web between six and seven in the evening, there will be a fine night; if in the morning, a fine day; if they work during rain, expect fine weather; and the more active and busy the spider is, the finer will be the weather.—*Mr. Gutch, in Meteorological Journal.*

TO CORRESPONDENTS.

"B" should call, or request a friend to make the inquiry, at the office of the American minister, Mr. Everitt, 32, Upper Grosvenor-street.

Melford could not expect an answer to his question in any journal that was not devoted to quackery.

Mr. Nootl's bill could only appear on the cover of the Journal, as an advertisement. We have no private means of promoting his object.

Candum Oxon would more properly inquire of Mr. H. by a private than a public note.

X. Z.—"The hall" will take cognisance of the proceedings of the party if he be practising as an apothecary, and proof be supplied of the fact; but the correspondent should not be anonymous.

Mr. Thomas Taylor's letter is unavoidably postponed for a week.

The letters of *Mr. J. Massey*, *Mr. James Tuckett*, *Philostratos*, and *S. G.*, have been received.

Dr. Penkivil, of Yeovil, says in a letter dated Feb. 18th, "I have only just seen your Number for Feb. 5, or I should have immediately replied to Mr. Wood, surgeon, of Reading, that the mechanical means he alludes to were adopted in the case reported by me in your valuable Periodical, and that other minor circumstances, calculated to soothe the patient, were not unattended to."

M. R. C. S. will find the information which he requests relative to woorara, in The Lancet, at p. 471, No. 878, June 27, 1840.

A correspondent inquires what is the strength of the ointment of morphia used by Dr. Mantell in the cases reported by him a few weeks since.

A notice of the typographical error alluded to by *Mr. Hancorn* is not called for; every one reading the article in question will mentally correct that which is evidently an oversight.

M. B.—As Cousin's "Psychology" is published in America, our correspondent should apply to Mr. Churchill, Princes-street, Soho.

Our correspondent *W. K.* must feel that his letter is not calculated to prove interesting to our readers: we therefore abstain from publishing it; and the more particularly since we are obliged to do the same for numerous letters on the same subject.

A correspondent writes, "Your readers must well remember the proceedings entered into against Greenough, the druggist, at St. Helens, near Liverpool. Allow me to inform you that, at the present time, a surgeon, in the same locality, is employing a druggist, in the capacity of assistant, to visit and attend his patients. This same druggist attends midwifery cases, and when not in the surgeon's employ quacks at a wholesale rate behind his own counter."—*** If all the "unqualified" assistants were numbered in this country, they would prove a legion, but the great bulk of them have been educated in medicine, and are not mere "druggists."

Mr. DANIEL CRONIN, of Falmouth, signing himself "M. D."—but certainly not a graduate of any *British* university, since he speaks of his patient "siting up," of death from "inflamation," of "acuracy of treatment," as "we have bin informed," of what is "likeley to destroy life," of the "benifit of catheterime of the eustachian tube," and of the unfairness of endeavouring "to rise the reputation" of another person at *his* expense,—Doctor Cronin, we should say, has addressed to us some comments on the letter of "H. M. W." in THE LANCET for Dec. 25, 1841, p. 440, the purport being to complain that the death of R. Page was ascribed at the inquest to the operation on the ear, and to insinuate that the fatal event was as likely to have been caused by Dr. Budd's after-treatment as by the operation. This is all that need be mentioned of his *reply*. We do not select the specimens of Doctor Cronin's orthography invidiously; but as he apes the physician, it is right to show at least one manner of his doing it. He adds, "Your correspondent mentions a case of Dr. Turnbull, that has nothing to do with this. Dr. Turnbull's patient died directly, and this patient (Page) from 'inflamation of the membrans of the brain' as we are told after a week or ten days illness." Dr. T. and Dr. C. may fairly run a pair in the same coach. *P. N. F.*

A Galway Man.—We shall not offer a word of commentary on the retractation. Too much attention has already been given to this disembodied *ghost* of a "Galway practitioner," who might have "squeaked and gibbered" to eternity against the Editor of THE LANCET. But he had charged a gentleman with passing off a diploma of one college as that of another, and assailed the character of a highly respectable body of Galway practitioners, before whose voice he has now sneaked away, and vanished into "thin" but very foul "air."

Rigd. F. guesses ill in supposing that such a note should appear in the same journal. The hit would lose its palpability.

The illustrations of *Mr. J. Curtis*, next week.

Guyensis.—We cannot insert such charges against a public officer on anonymous authority. We have been informed that the fullest opportunity was given on a recent occasion to all the "aggrieved" lecturers and teachers in London—honest complainants and sham ones, worthies and busy-bodies, alike,—to substantiate before a special tribunal any facts they might possess in evidence of the misconduct of the gentleman named by our correspondent; that not one of numerous allegations which were preannounced, and on which account the inquiry was instituted, was established, and that the dishonour which was designed for the accused all fell on the other side.

Rusticus.—Mr. G. is an off-hand gentleman, and has probably taken for granted and *believed* the problematical events, that he announces as certain, and his blunders should therefore pass, through charity, without criticism. Indeed, his mistakes are hardly worth a comment.

Mr. G. BORLASE CHILDS, of Wood-street, (p. 696), that the title of Mr. Verrall himself "to originality rests upon a very fragile foundation," of which he considers a proof to lie in the following parallel extracts from "Bamfield on the Spine," 1826, p. 96, and "Mr. Verrall's Report," 1838, p. 18:—

Bamfield, 1826. "It is almost needless to observe, that until lately lying on the back has been the only recumbent position employed, or indeed thought of, in curvatures of the spine; my experience has, however, proved the *facial horizontal* one to possess infinite superiority in this variety of curvature, and my surprise has been excited that reasoning *à priori* had not sooner led to its adoption."

Verrall, 1838. "Nor has the position, that I know of, ever been adopted by any individual but myself. I know not that this ought to be regretted, seeing that I have, in the mean time, had opportunities of putting the *prone position* to further proof. * * I no longer am content to be considered as the mere inventor of a couch, it being *my prouder boast that I* have been the discoverer of *a new and most advantageous position;* one which I believe to have been hitherto untried and unthought of, and one which will ultimately, in a great variety of cases, supersede its opposite, the supine position."

Mr. G. Borlase Childs says, that he has had "no opportunity of ascertaining the points of piracy to which Mr. Verrall alluded," and therefore cannot reply to them. We would close the controversy in our pages by observing that the fact that one writer has stolen from another, affords no excuse for a third filching from the second.